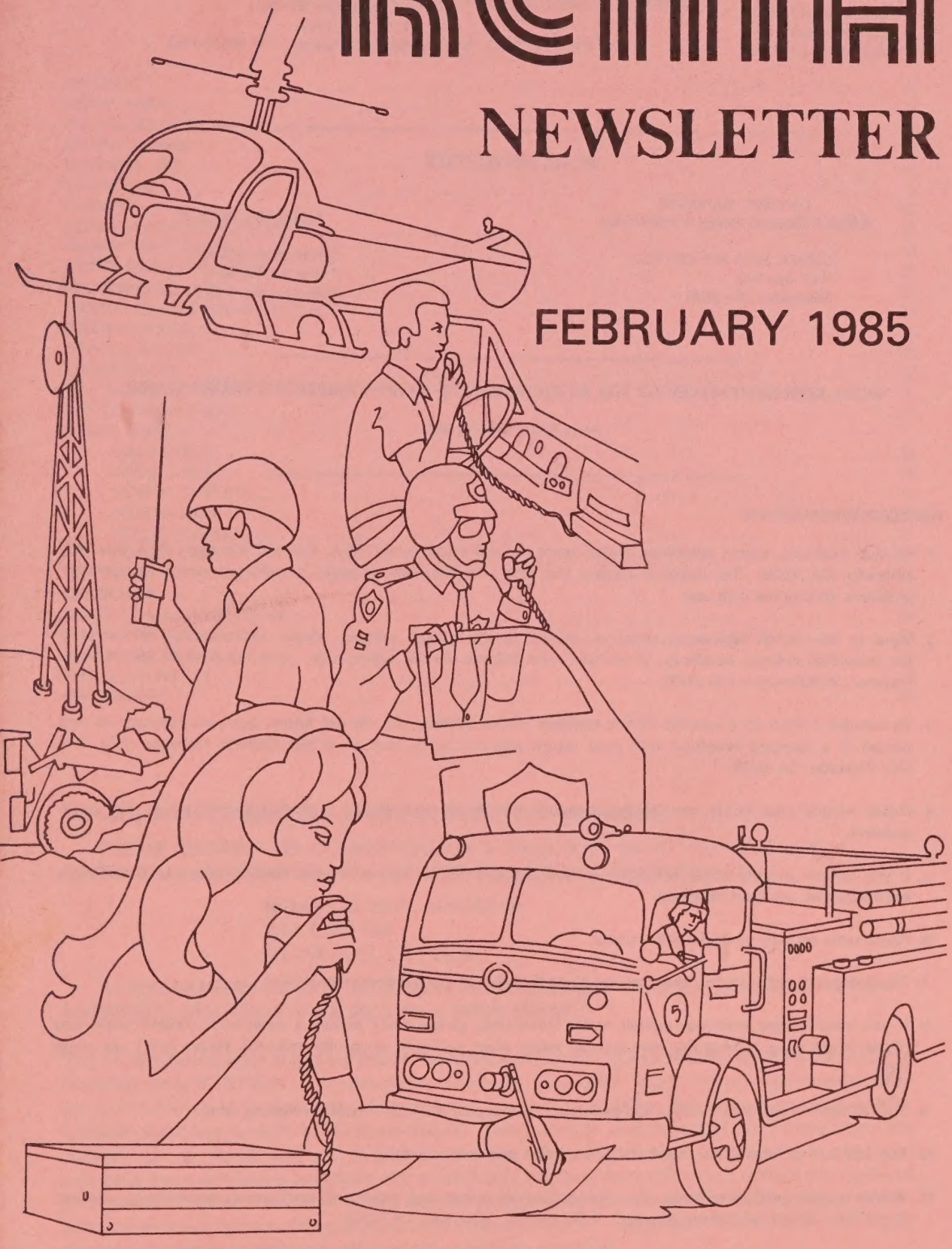
RCMA

NEWSLETTER



FEBRUARY 1985

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

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Williamsport, MD 21795

RCMA REPRESENTATIVES TO THE ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

Jerry Short (CA-OR-002)

FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to R.C.M.A. General Manager, P.O. Box 542, Silverado, CA 92676. This includes matters that relate to renewals, changes of address, newsletter delivery problems, joining the club, etc.

2. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

3. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

4. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.

5. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

6. Please write on only one side of the paper.

7. Please don't combine in one letter several items that should go to different addresses.

8. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

9. Your RCMA membership number and expiration date appear on your newsletter mailing label.

10. You may join or renew your membership for ONLY one year at a time.

11. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 542, Silverado, CA 92676.

RCMA NEWSLETTER

Issue 108 February 1985

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RCMA, P.O. Box 4563, Anaheim, CA 92803

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TO ALL RCMA MEMBERS AND PROSPECTIVE MEMBERS

PLEASE ADDRESS ALL CORRESPONDENCE (INQUIRIES ABOUT MEMBERSHIP, RENEWALS, ADDRESS CHANGES, DELIVERY OR RENEWAL PROBLEMS) TO:

RCMA GENERAL MANAGER
P.O. BOX 542
SILVERADO, CA 92676

CORRESPONDENCE SENT TO RCMA'S ANAHEIM POST OFFICE BOX WILL STILL BE ANSWERED, BUT THERE WILL BE A 4 – 6 WEEK DELAY.

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico–$18.50; Europe–$20.00, South Pacific and Asia–$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted ©. Reproduction of any material in this newsletter is prohibited without prior written consent.

RCMA

~oo Calendar ooo

Send notices of upcoming events for the Calendar section to:
John Clark, RCMA, P.O. Box 4653, Anaheim, CA 92803.
Please send notices well in advance of the Newsletter deadline.

R.C.M.A. Greater L.A. Area Chapter

Contact : Eric J. Christensen (CA-LA-045)
P.O. Box 3962 Santa Fe Springs, CA 90670-1962

Meeting Location: Mercury Savings & Loan, Valley View and Lincoln
Buena Park, CA, 2nd floor(elevator in rear)
Unless otherwise noted meetings are on the 4th
Friday of the month and start at 8:00 PM

January 25 FRIDAY Special Sharing Session
8:00 PM Mercury Savings & Loan

February 22 FRIDAY General Meeting. Eric is working on a suprise
but will not disclose by press time.

R.C.M.A. Chicago

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: NANCINI'S Resturant 5555 St Charles Road, Berkeley, Il
two blocks east of St Charles Road exit from Eisenhouer
Expressway Extention I-290 (phone 312 544 7277)

Saturday	March	09, 1985	1:00 PM
Saturday	April	20, 1985	1:00 PM
Saturday	June	08, 1985	1:00 PM
Saturday	August	03, 1985	1:00 PM
Saturday	September	21, 1985	1:00 PM
Saturday	November	16, 1985	1:00 PM

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other item which
may be scheduled on short notice.

R.C.M.A. Philadelphia
Contact: Gerald M. Schoaf, Floyd Schoenberg, C. Willard Load
PA-036 PA-076 PA-164
P.O. Box 213, Upper Derby, PA 19082 (215) 356-1982

Meeting the first Monday of the month, 7:30 PM at

Saint James Church Next to "The Grange"
Corner of Myrtle Ave & Warwick Road
Haverford, PA 19083

Talk In On: CB Channel 9 GMRS 467/462.675 Hams 147.66/.06

R.C.M.A. for D.C., MD, VA, & DE

Contact: Capitol Hill Monitors % Alan Henney (MD 069)
6912 Prince Georges Ave, Takoma Park, MD 20912

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc) non members are welcome to attend.

All Ohio Scanner Club

David B. Marshall OH 146 President
50 Villa Road, Springfield, OH 45503

Austin Area Radio Listeners Meeting

Meeting every 3rd Tuesday 7 PM Austin Public Library 4th floor room B. For more information, contact Richard Quintanilla TX 043 Austin Radio Club, P.O. box 5053, Austin Tx 78763

Southern New England Scanners Club

Contact Robert Murphy SNEC President 401-353-0208
P.O. Box 1591, Pawtucket, RI 02862

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

For an annual subscription to the ANARC Newsletter, send $5 to:
Joe Barr, 1500 Bunbury Drive, Whittier, CA 90601. ($8 overseas subscription.)

FEBRUARY 16 SOUTHERN CALIFORNIA AREA DXERS (SCADS) Saturday, 10AM-4PM. Village View School Auditorium, 5361 Sisson Drive, Huntington Beach, CA. All DXers welcome. For information send a SASE to Don Schmidt, APT A-2 3809 Rose Ave., Long Beach, CA 90807

SEE CENTERFOLD FOR COMPLETE, REVISED ANARC CLUB LISTING!

THOUGHT waves

Ginny Slick, RCMA Assistant Editor, 1 West Potomic, Williamsport, MD 21795

Dear RCMA Members,

Today is Dec. 17 and Ginny's column—in transit since early December—still hasn't arrived. This is particularly unfortunate because of some timely material it contains, including letters to the editor. However, we can't wait any longer, so the February issue goes to press without Ginny's contribution. Apologies to everyone who expected to see his or her letter in print.

While I have your eye: I committed some assurances with regard to printer quality control to paper in the January issue, only to discover that missing pages are surfacing again—in the December newsletter! We'll continue to replace defective issues and trust that the printer will do a better job of holding up that end of things.

The post card renewal notice seems to be working well. A couple of instances show that early renewal updates did not survive the transfer of computer record keeping. If you should get a renewal card and your records (cancelled check/ M.O. receipt) show you've already taken care of it, please let me know.

RCMA Managing Editor

Aircraft

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

SGT David N. Silva, H&HS Crash Crew, MCAS-H New River, Jacksonville, NC 28540

Welcome back!

Information and contributions are still coming in slowly, but the info that is arriving is concise and very good. I have recently received mail from members in New Zealand and Europe so it would seem that the membership is definately growing. It is nice to know that people are reading the column and enjoying the hobby. Keep on writing!

From Charles Chenery (NZEL-001) comes a letter all the way from New Zealand to report on the recent ANZUS Treaty TRIAD '84 military air exercise. It seems that the "Blue" North Island defended against the "Orange" attacking South Island forces as planned. The weather tried to ruin the whole production, but not impressed with Mother Nature's attempt, seven F-15 Fighters and two KC-10 Tankers from Okinawa arrived to take part. Charles reports that most of the excercise was on the UHF airwaves but the good stuff was scrambled. . . Oh Well.

Thanks to Charles for the report from a land far, far away.

Les Mattson (NJ-187) has sent in an extensive list for the Philiadelphia area.

PHILADELPHIA INTERNATIONAL AIRPORT

Tower	118.5
Clearance	118.85
Departure	119.75
Departure	124.3
Unicom	123.0
Ground Crews	121.7
Ground Crews	121.9
Approach	125.4
Approach	126.6
Approach	127.35
Approach	128.4
Flight Service	133.4
Rapid Rover Vans	152.4
Baggage Handlers	154.515
Arco Go-Patrol Helo	450.850
Operations & Police	453.450
Airport Police	453.850
Airport Vans	461.412
Parking Police	500.388
Fire Department	154.235
U.S. Air Ground Service	151.835
Trans World Airlines Ground Service	460.675
United Airlines Ground Service	460.725
Eastern Airlines Ground Service	460.750
Lufthansa Airlines Ground Service	460.800

AREA FREQUENCIES

Unicom - Philadelphia area	122.8
Unicom - Philadelphia area	122.95
Unicom - Philadelphia area helicopters	123.0
Unicom - High Altitude	122.975
Hot Air Ballons - Philadelphia area	151.625

Les, thanks very much for your list from Philly.

I recently received a letter from Bob Rankin (KS-001) concerning the space shuttle. Bob reports that on November 10th and 11th he monitored NASA 905 (a Boeing 747 carrying

the shuttle ENTERPRISE) working Kansas City Approach on 126.6 followed minutes later by NASA 2. The following day Bob monitored both aircraft again on 124.7, Kansas City Departure and on 123.8 and 134.9, both listed freqs. for Kansas. This goes to show that the non UHF equipped members can still get some of the shuttle action on regular VHF aircraft scanners. Thank you Bob for this information.

Alan G. Henney (MD-069) wrote to me a few months ago wanting to know if I would like some Washington D.C. traffic aircraft frequencies. I quickly wrote back saying YES! thinking that this would be something new to add to such a deserving column. Well, a few days ago a letter arrived with a very good list containing five different radio stations and even some T.V. stations. Alan has asked that I also list his address, just in case some of the members would like to contact him on monitoring traffic aircraft. His address is; 6912 Prince Georges Ave., Takoma Park, MD. 20912. Thanks for sending in some great information and frequencies, Alan.

NEWSMEDIA TRAFFIC / REPORTING AIRCRAFT (WASHINGTON, D.C. AREA)

WASH: FM 97.1 - Local Affilate - WTTG TV CH.5 - Network- METROMEDIA - Traffic Reporter: Dave Anthony: A/C Radio ID: 0-4-9; WASH Radio ID: Unit 35; Metro Traffic Control Radio ID: Unit 35 (Airborne 1)
Frequencies:

Aircraft to Aircraft (used by all local traffic planes)	122.75
WASH Radio/WTTG TV Base	161.730
Metro Traffic Control Traffic Airplane Network	161.760
WASH Traffic Reports	450.050
WASH FM Cruiser "Captain WASH"	450.250

WAVA: FM 105.1 - Network - Doubleday Broadcasting
Past Traffic Reporters - Bob Malone, Walter Starling
Frequencies:

Aircraft to Aircraft	122.75
WAVA Traffic Report / Radio Base	166.250

IMPORTANT NOTE: WAVA at this time has no traffic aircraft. There is some talk that they may have traffic reports again, however it will most likely be syndicated (from Metro Traffic Control).

WMAL: AM 630 - Local Affilate - WJLA TV CH.7 - Network - A.B.C.
Traffic Reporter: Andy Parks: A/C Radio ID: 9-S-V; WMAL Radio ID: Unit 4
Metro Traffic Control Radio ID: Unit 63 (Airborne 2); REACT ID: Unit 63(0)
Frequencies:

Aircraft to Aircraft	122.75
WMAL Traffic Reports (main)	161.700
WASH Radio / WTTG TV Base* CH.1	161.730
Metro Traffic Control Traffic Airplane Network* CH.2	161.760
WMAL Station Reporters / Traffic Reports (back-up)	455.2125
National Capital REACT, INC (NCRI) gives traffic info. to WMAL	462.675

NOTE: * WMAL's traffic airplane has been given permission by METROMEDIA (WASH/WTTG) to use their license (on 161.730 & 161.760) in order to communicate with Metro Traffic Control and the WASH traffic airplane, so they can trade traffic information. Usually CH.1 (161.730) is station operations, CH.2 (161.760) is traffic. 462.675 is not used by the traffic airplane.

WPGC: FM 95.5 & AM 1580 - Network - First Media Corporation
Traffic Reporter: Walt Starling & Steve Hiltabidle(back-up): A/C Radio ID: C-95; WPGC Radio ID: Air Mobile 1; Metro Traffic Control Radio ID: Unit 95*
Frequencies:

Aircraft to Aircraft	122.75
WPGC Radio Base (main) CH.1	161.640
WPGC Radio Base (back-up) CH.2	161.670
WPGC Radio Base / Metro Traffic Control Traffic Airplane Network	161.760
Walt Starling talking to WAVA (when they had a traffic helicopter)	166.250
WPGC Traffic Reports	450.700
Prince George's County REACT (may soon pass traffic info. to WPGC)	462.625

NOTE: * Even though it appears that WPGC is not connected with Metro Traffic Control upon occation WPGC has traded info. with them on 161.760 using Radio ID 95 (This applies only to 161.760, traffic info. is often traded on 122.75 with other stations) 462.625 is not in use yet with WPGC.

WTOP: AM 1500 - Local Affilate - WDVM TV CH.9 - Network - C.B.S.
Traffic Reporter/WTOP Radio ID: Bob Marbourg (Flight 15) / Unit 7 (Airplane)
Dave Statter (Cruiser 15) / Unit 8 (Ground)

A/C Radio ID: 44 Echo
Frequencies:

Aircraft to Aircraft	122.75
WTOP Traffic Reports / Radio Base CH.1	450.350
WTOP Traffic* (future) CH.2	455.650

NOTE: * (455.650) is a future traffic report frequency. When it goes into use for traffic reports CH.1 (450.350) will be mainly radio base / station reporters (Reports). Right now CH.2 is for secondary use only by the "Traffic Team". WTOP uses Motorola radios and many Bearcat 20/20's and 250's.

METRO TRAFFIC CONTROL (M.T.C.)

Based locally in Bethesda they use 3 Regency K-100's and a Bearcat 210 along with an UHF and a newer trunked radio system to keep up on the traffic in the Washington D.C. area. They syndicate reports to 24 radio stations and 1 TV station. M.T.C. Radio ID: Unit 36 Reporters vary.
Frequencies:

Aircraft to Aircraft	122.75
WASH Radio / WTTG TV Base (METROMEDIA) Traffic Secondary CH.1*	161.730
Metro Traffic Control Traffic Airplane Network (main) CH.2*	161.760
Future Traffic Report Frequency (should be paired with below freq.)	450.925
Future Traffic Report Frequency (should be paired with above freq.*)	455.925
Downtown Ground Traffic Reports "Unit 5"	496.1625
Trunked Radio System	862.4875 - 863.4875 - 864.4875 - 865.4875

NOTES: * M.T.C. uses 161.730 & 161.760 under METROMEDIA's (WASH/WTTG) license which also covers the WMAL & WASH traffic airplanes. M.T.C. tries to avoid using 161.730 whenever possible. If 450.925/455.925 are ever put into use it will most likely have a repeater. It should soon then be phased into the WASH & WMAL traffic airplanes.

LEASED (SHORT TERM) MEDIA AIRCRAFT

WRC: TV CH.4 - Local Affilate - WKYS FM 93.9 - Network - N.B.C.
Last used at Jackson concert at R.F.K. Stadium.
Frequencies:

Aircraft to Aircraft	122.75
WRC TV Local Base	153.050

WDVM: TV CH.9 - Local Affilate - WTOP AM 1500 - Network - C.B.S.
Last used to cover pedestrian bridge collapse.
Frequencies:

Aircraft to Aircraft	122.75
WDVM TV Desk CH.2 (?)	450.2125
WDVM TV Engineering "Control" usually used by A/C CH.1 (?)	450.750

BALTIMORE STATIONS

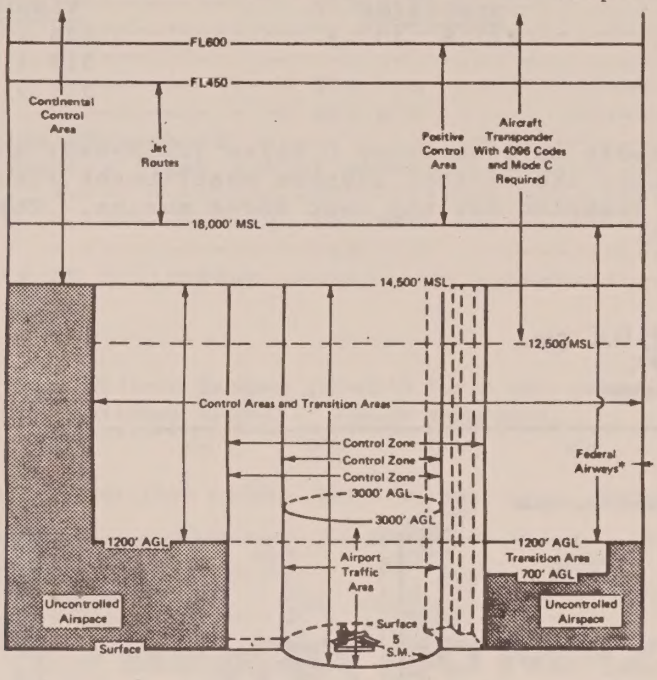
Frequencies:

WFBR (AM 1300) Traffic Airplane (No longer in exsistance)	166.250
WPOC (FM 93.1) Traffic Helicopter (No longer in exsistance)	455.050
Baltimore Metro Traffic Control	463.850
Baltimore Metro Traffic Control traffic airplane (unknown if still used, it crash landed several months ago.)	462.700

ADDITIONAL NOTES:

450.5125	Is in Washington D.C. a C.B.S. repeater. At times WCAU TV from Philadelphia, PA. comes through the input, producing audio (which is often monitored by the ARCO Traffic Helicopter.)
122.75	Is often used by local public safety aircraft. They trade info. with local traffic airplanes & with other public safety aircraft. M.P.D.D.C. (DCPD) ID as "Condor" ("Juno" on their radio) U.S.P.P. (Park PD) ID as "Eagle" Fairfax County PD ID as "Fairfax" M.S.P. (MD ST) ID as "Trooper"

To break up some confusion that some of the members might have on control zones, airport traffic areas, control areas and other segments of airspace, below is a diagram showing just where these segments are located in reference to an airport.



I hope that helps some people out.

Next on the agenda for this month are some frequencies from Denver Center.

DENVER CENTER KZDV

ARKON-A
127.5 319.2

ARKON-B
125.95 272.7

ALAMOSA
126.1 343.7

ASPEN
128.5 133.525
319.0 327.8

CASPER
134.65 135.6
239.0 322.5

CHEYENNE
124.8 133.0 134.2
281.5 284.7 135.025
350.3

COLBY
127.65 133.85
306.3 323.3

DENVER
124.1 124.8 125.95 282.2
128.65 128.2 133.75 272.7
284.7 285.5 290.2 306.9
322.3 357.6

CRAWFORD
127.2 135.025
257.9 338.2

EASTONVILLE
125.8 323.1

FARMINGTON
126.1 132.1 135.475
290.4 319.1 343.7

GOODLAND
132.5 353.7

GRAND ISLAND
132.7 269.6

GRAND MESA
127.8 128.5 135.65
132.15 132.85 269.1
306.9 307.9 327.0

GUNNISON
127.8 133.6
307.9 319.6

HANKSVILLE
127.8 132.15
307.9 327.0

HAYDEN
128.5 135.2
257.6 327.8

HAYES CENTER
135.5 335.6

LA JUNTA
126.6 132.225
135.15 317.5
335.5 348.7

LUSK
135.6 239.0

MEDICINE BOW
126.5 133.0 134.2
281.5 285.5 350.3

NATOMA
132.5 353.7

OGALLALA
132.7 134.4
269.6 381.4

O'NEILL
132.7 135.025
257.9 269.6

PUEBLO		
126.6	128.7	133.85
317.5	323.3	343.8

RAPID CITY	
127.2	134.65
322.5	338.2

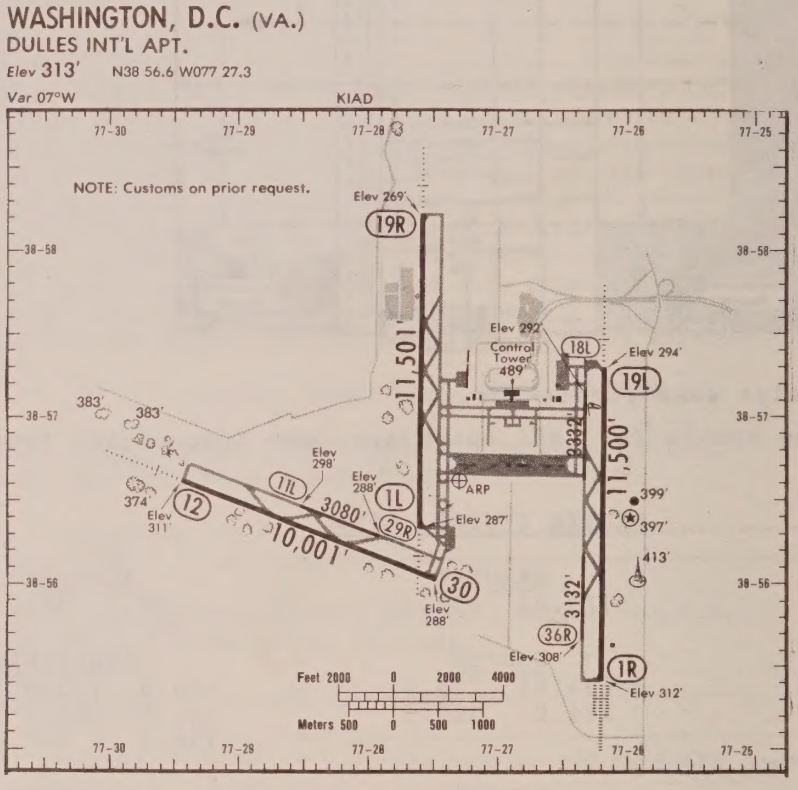
ROCK SPRINGS	
133.0	281.5

SUNDANCE	
135.6	239.0

SUNNYSIDE	
127.8	307.9

WINSLOW	
126.1	132.1
319.1	134.325
328.4	343.7

This months airport is from Danny O'Brien (CALA-540) again. I think I'll make Danny the offical airport contributor since he has sent me airport diagrams for the next three months. Thanks Danny and keep it up.



Tower	120.1	388.0
Ground Control	121.9	348.6
Apc/Dep Northwest	126.65	390.9
Apc/Dep Northeast	126.1	384.9
Apc/Dep Southeast	119.2	
Apc/Dep Southwest	120.45	351.1
Approach/Departure	125.05	
ATIS	134.85	
Flite Check, FAA	135.85	
Armel VOR	113.5	
Tower Operations*	415.125	
Gate Operations*	409.300	

NOTE: * These two frequencies are used for lounge operations. Lounges are dispatched on the gate freq. All ground vehicles use the tower operations freq. for movements on the field.

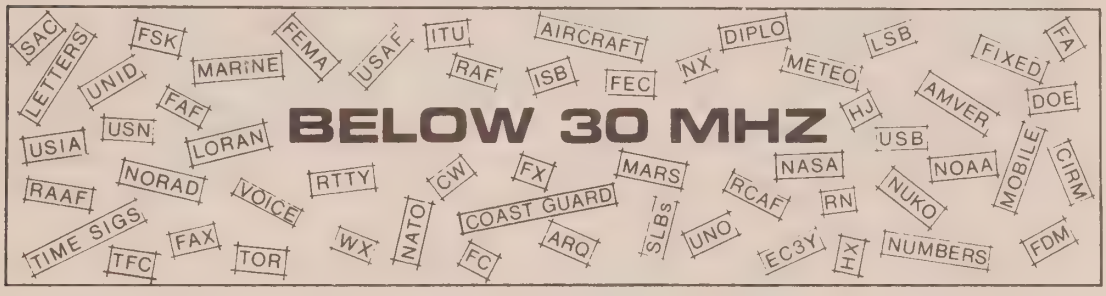
Facility Maint.	166.0875
Ground Emergency	165.500
Dulles Marriott	154.540
Police	165.710
Fire/RQ(Red)	164.825
Allied Aviation Fuel	151.805
Washington Flyer	416.875
	419.025

AIRLINES AT (IAD)

COMPANY	GROUND	AIRCRAFT
Page Aviation	460.825	122.95
Air Virginia		131.95
Americair		129.8
American	460.775	129.225
Braniff	460.675	130.225
British Airways (Speedbird)		129.15
Capital Helicopters (Temp out of service)		129.025
Colgan Air		129.65
Continental	460.850	131.975
Eastern	460.700	130.750(Acars)
Fairfax County PD Helicopter		131.0

Thanks to Major Willard Hardman (DC-011) for a very comprehensive list for the Dulles International Airport. Thanks very much.

Thats about all for this month. Until we meet again, Happy Monitoring!



This column is for HF AM, CW, SSB, RTTY and FAX reception reports, notes, articles, news and questions related to HF utilities. Send reports to: Geoff Halligey, 85 Southwood Road, Cottingham, N. Humberside, England HU16 5AJ.

Welcome to the column; let's see what this month has in store. First of all, concerning a fairly modern receiver...

RADIO SHACK DX-400

A review of this portable rx appeared in the March '84 issue of the RCMA Newsletter (the Uniden CR 2021 is virtually identical except for the front panel layout).

Summarising, this rx covers 150 kHz to 30,000 kHz without gaps, AM/CW/SSB, plus VHF FM. Ease of SSB tuning by the $\pm 2\frac{1}{2}$ kHz fine tuner was noted, otherwise tuning is in 1, 5 or 10 kHz steps. There are six preset frequencies available on both MF/HF and VHF. Autoscan between any two selected frequencies is also provided.

The rx can be operated by batteries, 12 V d.c. or 240 (110) V a.c. The report mentioned was based on battery and 12 V d.c. operation, but after some months the 12 V PSU was needed elsewhere and, as battery consumption was rather high (120 to 400 mV according to volume output), the 240 V a.c. supply was put into use.

Unfortunately, it was found that the internal A.C. rectifier produced its own 'hash', which spread from the lowest frequency, 150 kHz, where it was quite bad, down to around 750 kHz, where it gradually faded out. This was unacceptable, and the receiver was returned to Radio Shack for rectification. This they were unable, or unwilling, to do and to my surprise (seeing that I had had the rx in my possession for some nine months), I was offered a full refund of the purchase price, the firm stating that they stood by their products.

While it is surprising that Radio Shack should produce a receiver with such an obvious defect, it is still more surprising that they should be unwilling or unable to rectify it. However, it is to their credit that they should willingly acknowledge their fault and make a refund in the circumstances described without quibble.

I should make it clear that:

a) the Uniden CR2021 has not been tested

b) the firm Radio Shack mentioned above trades under the name Tandy in the UK and that the British firm Radio Shack of Hampstead in London is an entirely separate organisation and is not the Radio Shack referred to in the above article.

NUMBERS AND LETTERS

These two types of transmissions maintain their interest for a lot of members. Hugh Stegman, the RCMA Photo Editor, writes that 'one brave SWL loaded his car with DF gear and traced some of the 4-fig. group Spanish YL transmissions to the U.S. Government radio complex in Warrenton, VA, not far from the CIA HQ ! Five figure groups are beleived to emanate from just outside Havana'.

Speaking of origins, I read some time ago that some of the higher frequency transmissions - above 10 MHz - had been traced to Canada. Be that as it may, it now seems well established that most of the 'letter' transmissions using the International Phonetic Alphabet come from Mossad, the Israeli Secret Service. The transmitters are located in Israel and the messages are directed to the Mossad overseas intelligence gathering agents. These transmissions are easily recognised by the unusual pronunciation of one word, 'Novembeer'.

With so many Spanish speaking countries in N & S America it is not easy (unless you travel around, at your peril, with your DF gear) to determine who is doing the broadcasting. It is certainly not possible to say in what country the transmissions are being received.

In Europe, however, except in the instance of any German language transmission which could be from or to East or West Germany, it is fairly obvoius that, say, a Bulgarian or a Serbo-Croat language transmission is directed to persons in Bulgaria or Jugoslavia, respectively. Where they originate is anyone's guess.

Here are some October numbers loggings sent in by Hugh, all Spanish and heard between 0200 and 0600 gmt:

4050	5FG	AM	YL	6825	tuning calls		AM	YL
4085	5FG	AM	YL	6840	4FG	USB	YL	
6225	5FG	AM	YL	7333	5FG	USB	OM	
6560	5FG	AM	OM	7400	variable	AM	Excitable OM	
6800	4FG	USB	YL	7550	variable	AM	Excitable OM	
6810	5FG	AM	OM	8875	5FG	AM	YL	

Because of the time lag - it can be three months - between hearing these stations and their appearing in print it seems, on reflection, rather pointless to publish such lists of these stations. As Hugh says, they can come up anywhere and change nightly. But 3 to 9 megs is obviously the band to watch if you want to improve your Spanish !

Above 10 MHz the more exotic DX traffic comes into being - the highest freq so far recorded here being 24285 kHz, in German.

SINGLE LETTER BEACONS

One more to report. AAA varies around 7435 $\pm$ 1kHz - perhaps it is three separate tranmitters in three different locations - 32 call repetion rate per min in daylight here, 1100 to 1530 gmt (at least) QSA 2 to 3.

It has been suggested that these SLBs have some connection with Soviet submarines and their use of satellites. Well, so far as satellites are concerned, I heard some of these beacons operating in 1950, long before Sputnik took to the skies.

At least they stay, more or less, on one frequency.

CANADIAN MILITARY

Hugh also reports hearing Trenton Military on 6705 (wx on 6750) and Vancouver Military on 6710. In Europe, the Canadians have a base at Lahr, W. Germany with the voice call 'Lahr Military' and CW DHM95.

Frequencies in use are:

18012	9006
15031	6705
13257	5690 (20 - 0800)
13231 (08 - 2200)	4704
11233	3092

All 24 hours availability except as stated; wx broadcasts listed as H+16, but do not always come up.

HF EN ROUTE AIRCRAFT CHART

Danny O'Brien, CALA-540, has 59 copies of an HF en route chart, with frequencies, covering the Pacific. If you send Danny a SASE with a 20 cent stamp he will post a copy to the first 59 applicants. His address:

5437 W. Lemon Grove Avenue
Los Angeles
CA 90038

Thats all for this month; a bit late but a Happy New Year to all !

Beginners ?????? Corner

If you are new to monitoring, or have something you don't understand, please write to me at the address given below and I will try to answer your question. When possible, your questions and answers will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Bob Quinlan, 2210 N. Menard, Chicago, IL 60639

A huge apology is due Bob Quinlan, our Beginner's Corner Editor, as well as to those of you who may have sent Bob a question to answer in the last few months. Some time ago, I inadvertantly replaced the column head with Bob's correct address for one that had his old address printed below it. Could this be the reason Bob hasn't received any mail? Let's hope so—send (resend) your questions to Bob at the above, correct address.

RCMA Managing Editor

International

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902.

No column this month

Business, Etc.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufactureers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to: Brandt Niemuth, P.O. Box 541, Rosemont, IL 60018

Welcome to another edition in the ongoing saga of the "Busines, Etc" world. Thought for the month; "Self Control: Mind over mutter." On to the goodies.

First from Joe M Lewis (MD-015);
Busch Gardens update;

154.515	KAL 520	Operations & Security	
154.54		Maintenance	

For the Atlanta, Ga Area:

464.325		Hertz Rent A Car (WSZ 8334	
464.375	KAO 304	The Omnit	
464.475	WSW 365	Eastern Airlines	
464.525		Sheraton-Biltmore	
464.575	WZK 578	Sheraton - Atlanta	
464.600	WXV 721	Atlanta Air Center	
464.675	KNHM946	Avis	
464.75		Quality Inn	
150.92		Georgia AAA Motor Club	
150.935		Georgia AAA Motor Club	
151.655	KVH 719	Marriott	
151.775	WZL 711	Marriott Interstate Hotel	
463.85	KNDE506	Ramada Inn - Bristol	
463.9	WYD 701	Ramada Inn - Atlanta	
464.275	WRP 515	Advance Security Co	
464.325	KTQ 615	Atlanta Braves	

Oakland & Berkley Ca Area:

153.26	KJZ 493	Colgate Co	
151.745	KGL 294	Camco Security	
463.3	WYV 246	Evans Airport Service	
487.5875	WEC 917	The Airport Connection	
151.715	KLA 838	South County Security	
151.715	KNCW393	Tanglewood Apartments	
151.805	WSX 811	Burke Security	
452.575	KMF 201	California State Auto Assoc	
461.125	KFK 965	Apex Alarm Co	
461.25	KNAD535	Porois Security	
464.375	KNFL330	Hyatt Hotel - Oakland	
464.575	KNFL330	Hyatt Hotel - Oakland	
464.325	KRG 312	Royal Inns	
464.475	KNAZ858	Holiday Inn Oakland	
464.575	KNBU264	Hilton Hotel Oakland	
464.975	KSA 406	Al Rossi - Davis, Ca	
467.4	WCQ 875	Ora-Ida Foods	Davis Ca
154.625	KNAC809	Lord & Taylor	Fairfax Va
464.675	KSU 715	Avis	Fairfax Va
464.925	KNBK812	Palm Beach Mall	Palm Beach Fla
464.825	KNAV312	Royal Palm Beach Hotel	Palm Beach Fla
158.46	KNA 907	Palm Beach Gardens PGA Sheraton	
463.35		Protection Security	Hialeah Fla
464.375	KNDZ 423	Westland Mall	Hialeah Fla

The following from Joe have been confirmed: (as noted by *)

151.925	KSA 483	Quality Inn	Williamsburg Va
153.26	KRJ 209	Busch Brewery	Williamsburg Va
154.515	WSA 318	Ramada Inn	Williamsburg Va
464.175	KJQ 259	Busch Properties	Williamsburg Va
462.6	KAC3292	Colonial	Williamsburg Va
462.775	WYP 611	Phillip Morris Co	Williamsburg Va
463.575	KXL 617	Busch Gardens	Williamsburg Va
463.775	KWE 921	Busch Gardens	Williamsburg Va

*153.05	KFM 736	Busch Brewery	Tampa Fla
*151.625	WST 593	Prince Charles Plaza (Scty)	Hyattsville Md
*151.925	WRG 263	Beltway Mall (Security)	Greenbelt Md
*151.895	WXN 783	Capitol Plaza (Security)	Landover Md
*464.7	KYD 521	Lakeforest Mall (Security)	Gaithersburg Md

Thank you Joe for another fine contribution. Sorry for any confusion on this getting printed.

From Mark (ID-012), a new contributor to this column, comes the following from our "Potato" state: (Fairfield, Id area)

151.985	Mountain Bell Telephone - Maint
152.975	Gwinn Rice Ranch
153.425	Prairie Power Co-Op
153.53	Idaho Power Co - Boise
153.59	Idaho Power Co - Twin Falls
464.35	Intermountain Communications Repeater - Various Business & Agriculture-related users.

Thanks Mark.

From Carl (WI-054) comes a lengthly list from Wisc:

451.975	KNDG285	Blaney Farms Inc	Lebanon (Rptr)
461.125	KWB 644	Badgerland Equipment Co	Waukesha
461.125	KWK 407	Goodwill Industries	Milwaukee
461.125	KWB 706	Steiner Electric	West Bend
461.125	KBJ 884	Edward Wolf & Sons	Slinger
461.125	KWK 351	Hillside Auto Parts	Port Washington
461.125	KNDT403	SPCM Inc - Midwest Aerial Platforms	Waukesha
461.725	KZI 993	Groth Drilling Co	Cedarburg
461.725	WQU 275	Hinz Enterprises Inc	
461.725	KRS 771	Jacobus Quickflash	West Bend
463.85	KAU 727	W Bend Joint Sch Dist 101	West Bend
463.85	WQL 341	Knaup Homes Inc	Beaver Dam
463.85	KNDA212	Ralph Martin Towing/Salvage	Hartford
463.85	KNDC880	Frontier Ready Mix	Hartford
461.925	KT 9423	Wright Veterinary Service	Campbellsport
461.925	KNCQ490	Pelletier Vending	Fond du Lac
461.925	KKY 834	Federal Express	
461.925	KFA 201	Lakeside Harvestore	
461.925	KNCF707	Lake to Lake Dairy Co-Op	Kiel
461.925	KNDU855	Lee Kunze, Badger Structures	Sheboygan
461.925	KNEH393	Riverside Automotive	Howards Grove
461.975	KF 9973	Buske Equipment	Beaver Dam
461.975	KNDM245	Howard Cigelake Farm	Beaver Dam
461.975	KQ 5919	Doers International	Beaver Dam
461.975	KB 8686	Kottwitz Surge	Watertown
461.975	WCS 424	Loius Nehls Dairy Farm	Juneau
461.975	WGH 863	Rennhack Construction	Reeseville
463.825	KWO 720	Gehring Sales & Service	Rubicon
463.825	KXE 654	Suburban Rubbish Service	Rubicon
463.825	KNFS285	Joseph Lackas Trucking	Theresa
463.825	KNEF873	James Jaster Farm	Theresa
464.725	KJQ 654	Matteson Communications	Fond du Lac
464.725	KRM 389	Gellings Implement	Eden
464.725	KA 5322	Cutter Vac	Fond du Lac
464.725	KM 6181	Pfantz-Haegler Constr	Campbellsport
KNDP931		Eagle Bonded Couriers	Menasha
464.725		Tag's Asphalt Sealing	Eden
464.725	KNGH759	Michels Pipe Line	Brownsville
464.95	KSG 641	Sam's Rotary Drillers	Randolph
464.95	WQQ 745	Slinger Vegetable Corp	Randolph
464.95	WRE 569	Glen Smits Farm	Randolph
464.95		Metz Vet Service	Randolph
464.95	KRO 291	Strassburg Implement	Hustisford
464.95	KNCR447	Thermogas	Ashippun
464.95	KNCF911	John Margelofsky Farm	Neosho
463.975	WQY 784	A 1 Service	Germantown

461.625	WDT 308	Tritech Ambulance	Okauchee
461.625	WGG 965	Silver Lake Shell	Oconomowoc
461.625	WGC 466	Roberts Excavating	Delafield
461.625	KSF 214	Tel-Air Communications	Oconomowoc
461.625	KVO 556	D & D Drilling	Oconomowoc
461.625		Ralph's Auto Center	Oconomowoc
461,625	KWO 761	Brinkman Engineering	Oconomowoc
461.625	WDH 620	D Aasen Contracting	Oconomowoc
461.625	WGV 565	Eugene Kieck Farm	Ixonia
461.625	WGP 436	Jack Marks Farms	
461.625	WQJ.930	Terry's Excavating	
461.625	WGJ 739	Warrens Turf Nursery	
461.625	KNBB802	Lurvey Farms	Dousman
461.625	KNDR502	Wayne McDermott	
461.625		Expert Disposal	Hartford
461.15	KNGS874	Lynn's Waste Paper	West Bend
461.15	KXT 901	Johann Plumbing & Heating	Kewaskum
464.1	KNIK370	Mike Tighe Roofing	Brownsville
461.45	KWB 792	Karem Inc (Marshall Stock Removal)	
461.45	KNCL830	Steve's Car-Truck Service	
461.45	KNEA677	A to Z Farm Center	Watertown
461.45		Kast Trucking	Lake Mills
461.45		Schaeffer Soft Water	Jefferson
463.95	KNIF247	Patrick Reilly Realtors	Campbellsport
463.95	KNIT498	Singleton Electronics	Fond du Lac
463.95	KGW 506	Courtesy Vans	Eden
462.1	KND0507	Alto Co-Op Creamery	Alto
462.1		A H Bluenke & Sons	Rosendale
464.1	WQL 350	Slate Communications	Ripon
464.1	WQO 268	Ironsides Battery NFDL	
464.1	KNBV723	Disabilities Services	Berlin
464.1	KNDU217	Maly Implement	Waupun
464.1	KNDU223	Skelgas (Getty) F2	Princeton
464.1	KNFD951	Skelgas (Getty) F2	Redgranite
464.1	KNJD843	W G & R Furniture	Oshkosh
463.325	KMF 900	Wayne's Grading	Hartford
463.325	KNA0946	Ironsides Battery NFDL	
463.325	KXD 425	Karrels Dairy Equipment	
463.325	KDS 598	Merle Wuenne Plumbing	
463.325	KNFA643	Mueller Excavating	
463.325	KRB 277	Reissmann Electric	
463.325	KWE 800	Schulz Realty Inc	
463.325	KUG 404	The Threshold Inc	West Bend
463.325	KDK 633	Warnkey & Lehn Inc	
463.325	KRE 356	Woodview Veterinary Clinic	West Bend
463.45	KNFE223	Cablevision	Fond du Lac, West Bend
463.45	KUU 652	JNR Services	Byron
463.475	KNHL894	A-Z Vending & Food Service	
463.475	KNJP448	Sprayer Supply Inc	Oakfield

Also from Carl (WI-054) comes the auto racing info:

464.525 GO Racing F1 Fire/Safety
464.975 GO Racing F2 Operations

Note; These two freqs are for the Guiffre Organization, Milwaukee, which runs the State Fair Park Track.

Road America, Elkhart Lake:

464.375 464.525

CART - Championship Auto Racing Teams:
464.625 F1 Fire Safety, Operations
464.75 F2 Pace Cars

Thank you, Carl, for a fine list. Next month, more from the Dairy State from another member. By now, it should be 1985. In which case, HAPPY NEW YEAR ! ! ! ! !

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CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 211 Costigan Bay, Saskatoon, Saskatchewan, S7J 3P4 Canada

Greetings from Canada, and welcome to the February column. The weather has been doing some wild things. First it is cold, then it turns warm, quite warm. But I don't mind, it keeps things from being boring. Of course the university does its part. They have been really loading us down with work. It seems to have slacked off a bit, but watch out, here come the finals! Anyway my answering of letters has slowed down a bit. This will be rectified soon, after I finish my work with the diodes (bad pun).

First off this month is a letter from Harry(CAN-..4). He adds to the article that appeared in the October issue. He has learned the Edmonton Police Dept will only use the new scramblers (DVP) for special investigative and tactical units. Routine dispatch operations will not be affected. Harry also sent in an article that appeared in the Edmonton Journal. This article has a somewhat pessimistic attitude towards the new cellular radio systems. This article is included in the column. Thanks again Harry.

A while ago I got a letter from Delbert (CAN-083). He sent along a clipping from the Melfort Journal. It is an ad for Sask Tel, and it is promoting a service set up for one of the recent shuttle missions. It is a dial-in service allowing callers to hear live earth-to-ground communications from the shuttle. Sask Tel has recently installed the 1-900 service, allowing their customers to call these numbers. The charge is 50¢ for one minute, and 35¢ for each additional minute. Delbert dialed 1-900-410-NASA and heard some very clear air to ground. I do not know if this service is active for any more missions, but it might be worth a try. Thanks for the info, Delbert.

From Montreal, I have a letter from Stuart (CAN-099). He sent in an update to the listings for the Quebec Ministry of Public Works. He says that the frequencies for Montreal have not been used for some time. He adds that the City of Montreal Public Works are on the following:

411.1625	412.0875
411.7875	412.3625
411.8625	412.4125
412.0375	412.6125

Stuart is currently working on a computerized list for the Montreal area. He'll let us know when it is ready. Thanks for the update Stuart.

Next is another letter from Mike (CAN-092). He reports that the following frequencies are for the BC Emergency Health Services, but no activity has been heard yet.

142.245/138.255in
142.365/138.375in
142.395/138.405in
142.095/138.105in

Also from Mike:

Matsqui Police Ch 1 142.965/138.690in
Ch 2 ?
Ch 3 140.295

Mike has also heard the Coast Guard (Transport Canada) on 143.985/148.975in. This channel is used for a station to station network, and simulcasts 143.535/148.525in. One thing that Mike noted is that the Vancouver base station is not heard on 143.985, only the remote stations are heard. If any member knows why this happens, please send the answer to Mike or myself, and I'll put it in the column.

Mike also sent in some information on frequencies used during the

Pope's visit to the Abbotsford site:

Perimeter Security Abbotsford RCMP	140.130 / 139.620in
Foot units Abbotsford RCMP	139.080
	139.290
Matsqui Police Traffic	142.965 / 138.690in
Matsqui Fire Dept	154.890
Vancouver site:	
Vancouver City Police Traffic	143.025 / 148.015in
RCMP BC Place	139.080
	139.290
Emergency Health Services BC Place	149.680
	142.605 / 138.615in

Mike also sent in some details on the E.H.S. units in the Vancouver area:

Area #		Dispatch Frequency
1	Vancouver	149.440
2	"	"
3	"	"
4	"	"
5	"	"
6	" & south Burnaby	149.830
7	New Westminister	"
8	Vancouver	149.440
9	North Surrey and Delta	149.830
10	Richmond	149.440
11	South Delta	"
12	Cloverdale and Langley	149.830
14	South Surrey	"
15	West Vancouver	"
16	North Vancouver	"
17	Maple Ridge	"
18	Vancouver and North Burnaby	"
19	South Burnaby and New Westminister	"
20	New Westminister and Coquitlam	"
21	Vancouver	149.440
22	"	"
23	Port Coquitlam and Port Moody	149.830
102	Administration & Radio Technicians (On	142.905/138.915in)
103	" " " "	"

The format for the unit identification is as follows:
First Number: Area #
Second Letter: Order of car on duty
(X cars are Transfer only)

Mike and I would both appreciate any additions or corrections to the above list. Thanks again for the wealth of information Mike.

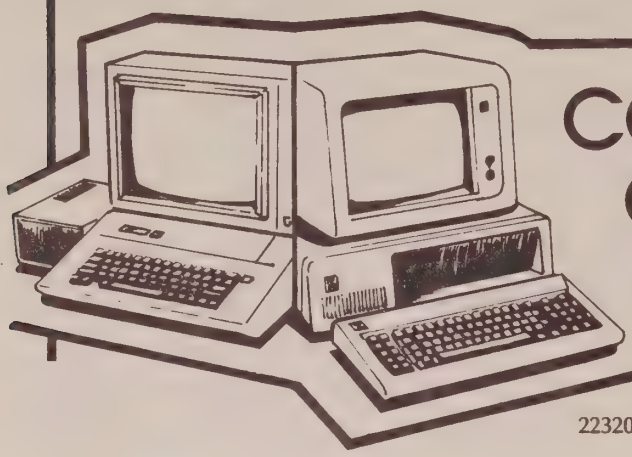
Doug (CAN-041) recently sent in a bunch of newspaper clippings. One of them deals with the new Computer Aided Dispatch (CAD) for the Calgary Police Service.

Another article deals with a raid conducted by the Edmonton City Police. They raided a house known as the "Fortress" because each door had steel bars, and there were guard dogs in the front & back yards. Police used a battering ram to punch down the door. Along with a large amount of restricted drugs, police found a "sophisticated police radio scanner." It is unfortunate, but there are people using scanners to aid their illegal activities. I only hope it doesn't get any more popular.

The last article Doug sent in was on the subject of wildlife radio telemetry. The article appeared in the University of Waterloo Engineering Newsletter. It describes how animals are collared and tracked, and the minimum specifications for a typical collar. Those transmitters have to go through some rather tough conditions. I'm sure the animals aren't particularly gentle to them.

If any member wants more information on the above items, they can write to me with a SASE and I will forward a copy of the desired item(s). Thanks for writing in Doug.

With that I will close the column for this month. Column contributions seem to have slowed down a bit. If you were listening to the scanner during the Pope's visit, why don't you send in what you heard? If the Pope didn't come near you, send something else in. Until next month, best wishes.



RCMA COMPUTER CORNER

Editor: Bob Cheek
22320 SW 63rd Avenue, Boca Raton, FL 33428

Hello and welcome to the Computer Corner! This month I have a few items of interest that have been brought to my attention, and I also want to detail some minimum requirements for software applied to frequency logging.

The Association of Clandestine Radio Enthusiasts now have a Bulletin Board Service (BBS) up and running. The BBS contains general Short Wave Listening information in addition to up to date information on private, spy and clandestine broadcasting.

Access is restricted on the first call, but after your password has been validated (usually within 24 hours) you will have additional functions on the BBS. The BBS is located in Kansas City, Kansas and supports both 1200 and 300 baud modems. The phone number is (913) 677-1288. Those of you with modems, call it up and give it a try I think you may find some interesting information in there!

From the Fort Lauderdale News and Sun-Sentinel comes an article about portable computers in Police cars. It seems that Radio Shack, Nippon Electric, and Epson have loaned the Orlando Police Department 64 portable computers for use by the patrol officers. The portables will be used to type up reports, keep lists of stolen cars and other "paperwork" tasks that are now done in longhand by the officers. They feel that there will be a greater savings in manpower over the conventional method of filling out forms. This sounds like an excellent application for portable computers.

I want to put forth some ideas in regard to the requirements for software used to store and log frequency information. One of the most obvious applications of computers is the storage of data, and for the home computer of a scanner enthusiast the storage of data on frequencies.

By far the easiest way to accomplish the task is to use existing software. A file manager program such as Radio Shack's Profile III+ that I use here is a painless way to store frequency data. But, for instance, Profile III+ at $199 is a lot of money if the only application that you have is the frequency log.

Many of you that responded to the survey indicated that you had applications of your computer for storing frequency information, others wrote that they would like to see frequency logging programs published in the Newsletter. But so far only a few have been received and most of those missed the mark as far as being useful for the general public. What do I mean by "missed the mark"? The programs contained the data within the body of the program, in the form of PRINT or DATA statements. That means for one to add or change the data, one has to edit the program, and that is not the way it is supposed to work!

Instead the program should operate on data that is stored in a disk or tape file. By writing the program in such a way, others can use the program for his own data, and the ability to find, edit, sort and exchange data is greatly enhanced. This month we will look at these requirements, and in subsequent articles we examine the implementation of just such a program in Basic.

Although all of the functions that I will discuss are important, the most important has to be a way to get the data into the datafile. This is made up of two parts, a method of typing the data into the computer's memory, and then getting that data written out to the storage device. (tape or disk) Before we start writing code we have some questions to answer!

The first question is does the computer have enough memory capacity to hold all of the data that I may possibly collect? How much data do I have? How much memory is required to store the data? How much data can I store on the disk?? Ahh! that is four questions you say! Wait, it gets worse.

First we must decide what information to store in each record. Let's approach this as if we were going to create a logbook. We will design the datafile in the same manner. The logbook would be the datafile in the computer, each line of the logbook would be a record containing all the information that we wish to store on a given frequency, and each column entry of the line (frequency, time, call letters etc.) would be a field of the record. If we were designing a logbook we would have to decide how wide to make the columns according to what was going to be written in the column. The same applies to the datafile, we must decide how many characters should be contained in each field, and therefore in each record!

So lets put write down some figures -

Field	Length
Frequency	8
Service	2
Name	20
Date	10
Call Letters	10
Comments	20
Total	50 Bytes

We have 50 bytes of information on each entry, and because I always forget something, I am going to reserve 64 bytes for my records just to be on the safe side. That way if I want to add a field later, I will not have to reformat all the data that I have typed in! Yes, I am lazy!

Most Basic languages have a method of printing the amount of free RAM memory, and on my 48K TRS-80 Model I, with Disk Basic loaded I have 38,263 bytes of free memory. Now I am going to SWAG (Scientific Wild-Ass Guess) that the program will require about 8K of memory, and about another 1K for string space and variables, not to mention the disk buffer. Whoops, I am down to only 29,263 bytes of storage. Divide the free memory by my 64 bytes of data on each record, I find that I can hold only 457.23438 records, rounding up to 458 records doesn't help much either! So unless you have less than 458 frequencies that you want to log, one of the decisions has just been made for us. We will not hold all the data in the computer's memory.

But to do a reasonably fast sort we want to get the data into the memory. To sort the disk file directly would be far too slow, so worst case, with the longest field of 20 bytes in memory, we could sort 1463 (29,263 bytes of free memory divided by 20 bytes) records. If we restrict the sort to only a portion of the total field, say 5 bytes, we have the ability to sort 5852 records! (29,263/5) Now that's more like it.

Now we have our record format defined, we can sort over 5000 records without going to the disk, we are almost ready to start writing code. Let's think about the other functions that we want the program to perform. This will establish the format for the Main Menu. We want to . . .

1) Enter Data (gotta get the data in there)
2) Edit Data (messed up or they just changed frequency)
3) Sort Data (I want my data in some kind of order)
4) Display Data (want to look at it)
5) Printout Data (want to print it and send it to the RCMA editors)
6) Save Data and exit program

This is the Main Menu, selecting some of these functions should lead to a sub Menu that will provide additional data on how the function is to be performed. Like printing out data, do you want to print all the data? What sort index is to be used? You may want to have more than one format for the printed output...the possibilities are endless.

Over the next months I will go into detail on each of the functions described above, and by the time we are done, you should have a very usable frequency log program for your computer. I don't intend to write the code for you here, for that would take all the fun away from you, but I will provide enough detailed information that you will be able to write the program for your machine in Basic. Now, if there are any areas in which you have questions as we go along, write them down and mail them to me. I will answer then in the column for the advantage of all. Don't call me on the phone, cause I'm not going to be able to help you that way. I can't know all of the different Basics out there.

As you know I am planning to have a BBS here in Boca Raton for the exchange of frequency information, programs and data. If there any others out there willing to donate computer time (and some of your money too) to putting online a BBS for the RMCA, especially in the Northeast, Midwest, and the West? I need to hear from you!

That about wraps up this month. One last note, you have heard this before, this editor is dreadfully short of contributions! Making this column work is going to take the involvement of all of the RCMA members with computers to provide material to be published in the Computer Corner. I know that there are a lot of you out there, because of the response to the survey. So if you want to see the Computer Corner continued in the RCMA Newsletter let's get some input to the editor.

Until next month!

COMMUNICATIONS PROFILE

Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

This column is for special projects that explain various radio systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No. 8 in the inside front cover of the Newsletter.

HEY OUT THERE---HAVE YOU FORGOTTEN ABOUT THE "COMMUNICATIONS PROFILE"??? IT DOESN'T HAVE TO BE ABOUT A "POLICE OR FIRE" DEPARTMENT, IT CAN CONCERN BUSINESSES OR CORPORATIONS ALSO. SOMEONE OUT THERE MUST HAVE SOME INFO TO SHARE. THIS COLUMN IS FOR THE BENEFIT OF ALL MEMBERS.

HOPE TO HEAR FROM YOU SOON.

Cliff

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interests, this is the perfect place for you to make known your interests. Remember – those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address. Write to:

Until a new editor is found for this column, members wishing to insert a request may send their material to RCMA Managing Editor, P.O. Box 542, Silverado, CA 92676. Please mark envelope "Contact Column." The deadline is the 10th of the month preceding the month of publication. Please keep in mind that RCMA will not publish requests for "sensitive frequencies." Include your RCMA membership #.

HELP WANTED: Can anyone help with radio freqs for "Neighborly Senior Services" or "Coordinated Transport for Elderly" in Pinellas Park, FL and "Wheelchair Transport," Largo, FL? (11-13-84)
Joe M. Lewis (MD-015), 750 Scotland St., Dunedin, FL 33528 or call 1 pm - 8 pm EST (No Collect) (813)736-3473.

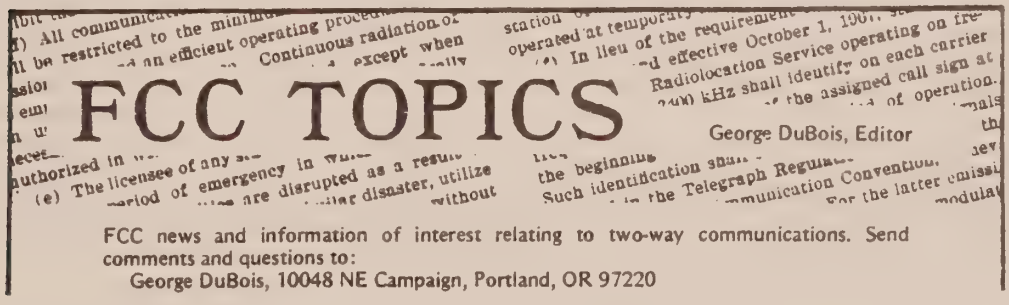
WANTED: Frequencies for Explosive Technology, Explosive Technology Rd, Fairfield, CA 94533.(11-11-84)
Joe Velasquez (CA-SO-006), 248 Plantation Way, Vacaville, CA, 95688 or call (707)447-5477.

WANTED: Frequencies and codes for Police, Fire, EMS, Forestry Service, Parks, and Railroads for the following areas: Missoula, MT, and Glacier Natl Park, and Cody, WY and Yellowstone Natl Park. Will exhange frequencies and other information for the Springfield, OH area if requested.
David B. Marshall (OH-146), 50 Villa Rd, Springfield, OH 45503.

PHILADELPHIA AREA MEMBER wishes to exchange video cassette tapes of your local police and/or fire department in operation (VHS format, please). For details regarding the possibility of such an exchange, contact Lou Campagna (PA-024), 7221 Rising Sun Ave, Suite 199, Philadelphia, PA 19111.

FREQUENCIES WANTED: For Santa Cruz and Aptos, CA area—CHP, Fire, Hospital, Marine; any and all information will be helpful.(11-18-84)
Doug Schnell (IL-175), 119 N. Alma Ave, Kankakee, IL 60901.

CONTACT WANTED: For area of Sherbrooke and Montreal in Quebec, and for northern Maine, USA. Many frequencies to be checked, inluding RCMP.
Gilles Thibodeau (CANA-101), Box 193, Lac-Megantic, Quebec G6B 2S6, Canada.


FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

Scanning 800 mHz.

Since more and more hobbyists have, or soon will have, access to equipment that receives the 851 mHz Land Mobile band, I thought it would be a good time to cover the allocations and other specifics pertaining to the band. Regency has promised us some Japanese import that covers the band, Bearcat/Uniden can't be far behind and converters for use with existing scanners have been available for years. A good

article in the newsletter last year covered the generalities, I'll attempt to cover the specifics.

The 851 to 866 mHz band consists of 600 channels each spaced 25 kHz apart. The mobile units operate 45 mHz lower, in the band from 806 to 821 mHz. The proceeding to allocate these channels for land mobile use began in the early 70's, but when the reconsiderations, appeals, etc. were finally settled one-half, or 300, of the channels were released in 1975. 100 of these were for conventional systems, regular repeaters like we're used to in the VHF and UHF bands. 200 were released for Trunked systems. A trunked system uses 5, 10 or as many as 20 channels. The mobile units are switched to a vacant channel automatically by a system that either uses one of the channels for a control channel or a subaudible carrier on one of the channels. This dynamic system of channel selection can accomodate many more users since, with a conventional system, if the channel is in use, no one else can use it (obviously). For this reason the FCC was committed to encouraging the use of trunked systems. But, under pressure, they reluctantly released 50 more channels for conventional use in 1978. The remaining 250 channels were finally released in 1982 for either conventional or trunked use.

Since trunked repeaters are very expensive there was little liklihood that small businesses would be able to afford them, even if they were to share them with other users. For that reason the Commission created a class of license called the Specialized Mobile Radio System (SMRS). SMR's were radio dealers or other entrepeneurs who were permitted to construct and license 800 mHz trunked systems and sell use of them for profit (otherwise prohibited at the time in other bands). The Commission believed that this was the only way trunking could be encouraged, since only the largest users would be able to afford such systems otherwise. SMR's were ruled in court decisions not to be common carriers, since they did not offer service to the public at large, only to entities eligible for licnesing in the land mobile services. By the time the last 250 of the 600 channels were released in 1982, most licenses were being issued for trunked SMR systems. For a discussion of the 1982 proceeding, see the Dec.,82 and Jan., 1983 FCC columns.

Operation in the 800 mHz band is governed by two Rule parts. Subpart S covers operation of all conventional systems and the "new" channels released in 1982. Under the old procedures assignments on the first 150 channels were selected by the Commission, not by frequency coordination committees or field studies, as in other bands. They just start at 851.0125 and users are licensed in an area until that channel had a certain number of mobile units on it, then the next channel (851.0375) would be licensed. If a licensee had a sufficient number of mobile units he is assigned the channel exclusively. No users would be assigned a frequency within 70 miles of another licensee on the same frequency. No channels were set aside for specific services (Business, Taxi, Forest Products, etc.) as is done in the VHF and UHF bands.

These 150 channel pairs run from 851.0125 through 854.7375 mHz. Obviously the place to search would be from 851.0125 on up. In the major metropolitan areas, don't bother. All 150 channels will probably be assigned. The majority of licensees will be in the Business Radio Service. Within 87.5 miles of the Canadian border, these channels are available for trunked systems, under terms of an agreement with Canada.

The next group of channels (from 854.7625 - 860.9875) are those that were released in 1982. Most of them are not available within 87.5 miles of the Canadian border since, under the agreement with Canada, they get these middle 300 channels and the U.S. gets the other half (at the upper and lower ends of the 851-866 band). Thse "new" channels have clusters of channels set aside for specific groups of services - Public Safety and Special Emergency, Industrial (except Business), Business and SMRS. These set-asides are temporary, until Sept., 1985, to ensure all groups of users access to 800 mHz frequencies. After that date no channels will be reserved for any group, except that Public Safety licensees will be given additional time to construct and place into operation systems that require funding over a long period. These set-asides are part of the reason two different subparts apply to 800 mHz frequencies. There are also differences in the application procedures, loading standards and also the fact that users (except SMR's) may select their own frequency, recommended by a frequency coordination committee. All of these "new" channels are available for either conventional or trunked systems, at the users option, except that no licensee will be assigned more than five conventional channels. If he requires more, he must convert to a trunked system.

854.75 - 856.0 mHz single channels

Business Radio Service	854.7625	855.0125	855.2625	855.5125	855.7625
	854.7875	855.0375	855.2875	855.5375	855.7875
	854.8125	855.0625	855.3125	855.5625	855.8125
	854.8375	855.0875	855.3375	855.5875	855.8375

Industrial/ Land Trans.	854.8625	855.1125	855.3625	855.6125	855.8625
	854.8875	855.1375	855.3875	855.6375	855.8875
	854.9125	855.1625	855.4125	855.6625	855.9125
	854.9375	855.1875	855.4375	855.6875	855.9375
Public Safety	854.9625	855.2125	855.4625	855.7125	855.9625
	854.9875	855.2375	855.4875	855.7375	855.9875

856.0 - 861.0 mHz channel groups

SMRS (40 channels)	856.0125- 856.1875	857.0125- 857.1875	858.0125- 858.1875	859.0125- 859.1875	860.0125 860.1875
Public Safety (15 channels)	856.2125- 856.2625	857.2125- 857.2625	858.2125- 858.2625	859.2125- 859.2625	860.2125- 860.2625
Indust./Land Trans. (30 channels)	856.2875- 856.4125	857.2875- 857.4125	858.2875- 858.4125	859.2875- 859.4125	860.2875- 860.4125
Public Safety (15 channels)	856.4375- 856.4875	857.4375- 857.4875	858.4375- 858.4875	859.4375- 859.4875	860.4375- 860.4875
SMRS (40 channels)	856.5125- 856.6875	857.5125- 857.6875	858.5125- 858.6875	859.5125- 859.6875	860.5125- 860/6875
Public Safety (15 channels)	856.7125- 856.7625	857.7125- 857.7625	858.7125- 858.7625	859.7125- 859.7625	860.7125- 860.7625
Business Radio Serv. (30 channels)	856.7875- 856.9125	857.7875- 857.9125	858.7875- 858.9125	859.7875- 859.9125	860.7875- 860.9125
Public Safety (15 channels)	856.9375- 856.9875	857.9375- 857.9875	858.9375- 858.9875	859.9375- 859.9875	860.9375- 860.9875

Trunked systems are assigned in groups of five channels. When those are filled the licensee may apply for five more. Each channel in a five-channel group is exactly 1 mHz apart, reading accross the row as I have printed them. Within 68 miles of the Mexican border the channels from 855.0 through 861.0 mHz are offset 12.5 kHz low in frequency.

Even after the set-aside for the service groups expires, the obvious place to search for Police and other public safety services would be the Public Safety groups above. Another provision applying to the "new" channels is that two or more adjacent channels may be grouped together for use with ACSB or other narrowband emissions. But no one makes ACSB equipment for 800 mHz yet, so don't worry about it.

Subpart M governs assignment of the "old" trunked channels released before 1982 (861-866 mHz) and will remain in effect until 1987, after which Subpart S will apply. The frequencies are assignable in ten groups of twenty, or fewer, channels and are assigned from the high end of the band (865.9875) down, in order. (I've listed them backwards so that they appear in frequency order, from 861.0125 through 865.9875.) With these "old" channels a licensee was allowed to apply for up to 20 channels at one time if he loaded them within five years or he could apply for five at a time. New SMRS applicants may now only apply for five channels at a time. If you live in any of the large cities (except along the Canadian border) all 200 of these channels are probably already assigned.

861.0 - 866.0 mHz "old" trunked channels

Block 10	Block 9	Block 8	Block 7	Block 6
861,2,3,4,5.0125	861,2,3,4,5.0375	861,2,3,4,5.0625	861,2,3,4,5.0875	861,2,3,4,5.1125
861,2,3,4,5.2625	861,2,3,4,5.2875	861,2,3,4,5.3125	861,2,3,4,5.3375	861,2,3,4,5.3625
861,2,3,4,5.5125	861,2,3,4,5.5375	861,2,3,4,5.5625	861,2,3,4,5.5875	861,2,3,4,5.6125
861,2,3,4,5.7625	861,2,3,4,5.7875	861,2,3,4,5.8125	861,2,3,4,5.8375	861,2,3,4,5.8625

Block 5	Block 4	Block 3	Block 2	Block 1
861,2,3,4,5.1375	861,2,3,4,5.1625	861,2,3,4,5.1875	861,2,3,4,5.2125	861,2,3,4,5.2375
861,2,3,4,5.3875	861,2,3,4,5.4125	861,2,3,4,5.4375	861,2,3,4,5.4625	861,2,3,4,5.4875
861,2,3,4,5.6375	861,2,3,4,5.6625	861,2,3,4,5.6875	861,2,3,4,5.7125	861,2,3,4,5.7375
861,2,3,4,5.8875	861,2,3,4,5.9125	861,2,3,4,5.9375	861,2,3,4,5.9625	861,2,3,4,5.9875

Listening to the conventional channels (851.0125-855.9875) is just like listening to community repeaters in the UHF band. No big deal. Listening to a trunked system is a little different. An article in one of the monitoring newspapers a while back put out a lot of disinformation on the subject. It's not really all that difficult. A look through the FCC license microfiche will show which trunked groups should be on the air. (Just because they are licensed doesn't mean they will be, although the Commission will take back a license (particularly an SMRS) if the system isn't on the air within the prescribed time limit.) Remember the one mHz spacing between groups of five channels and 250 kHz spacing between channels in a 20 channel system. Also, a system may

not have all their channels on the air. They may be licensed for twenty channels but only have five or ten on the air now.

If you don't have access to license information and find a frequency by searching, look in the tables above to find the other channels in the group. A little listening will determine how many channels are in the system. Then you can put those channels in your scanner. Systems that use one of the channels as a control channel are easy to find. Motorola systems, for example, have this gawdawful buzz on the control channel. (This channel changes from day to day, which will further help you determine the number of channels in a system.)

It's probably easiest to scan a trunked system with the delay on your scanner off. You can then stop the scan when you hear a conversation of interest. With most systems the users will not change frequencies during a conversation unless they let the repeater delay time out. Once the repeater unkeys, they change frequency the next time they key up, so hit the scan button again. This can be very frustrating at 4:30 on a Friday when all the channels are busy and you can't find the original conversation again, but at night shouldn't be as much of a problem.

If and/or when public safety agencies go to trunked systems, users will probably be divided by area or agency, by either subtones or the control channel. All public works units will be switched to one channel, animal control to another, etc., as they key up. Police agencies will no doubt be divided by precinct. That means that Central precinct will show up on one channel one time, a different one the next, or North precinct on the one you were listening to! This is no big deal since you probably listen to maybe five districts at once on your scanner now (or try to). How often do you stop your scanner on one net during casual monitoring now? Trunked systems allow great flexibility to the users. Detectives could be placed in one subgroup, for example. Or an "all-call" provision allows broadcast to all units from selected, or all, groups.

As a final note, remember that all 800 mHz frequencies aren't available in all areas along the Canadian border. Generally, the U.S. has the upper and lower 150 channels (3.75 mHz each) and Canada has the middle 300 (7.5 mHz). This means there is only 750 kHz spacing between trunked channels, since you need 200 contiguous channels (5 mHz) to have 1 mHz spacing between channels in a five channel system. In one area (upper New York state) only 180 channel pairs are available, 90 at each end of the band, so there's only 450 kHz spacing between trunked channels. You won't find much activity along the Canadian border yet anyway, since agreement with Canada was only reached in 1982 and the frequencies released. In almost every major market there are many more applicants for the SMRS frequencies than there are frequencies and lotteries will be held to select licensees. In the San Diego area, remember that the channels in the 856-861 mHz segment are offset 12.5 kHz low in frequency. Of the "old" trunked channels (861-866 mHz) the U.S. has the even-numbered blocks, Mexico the odd numbered blocks, but most can't be used in San Diego due to interference with Los Angeles. The U.S. is negotiating with Mexico the use of offsets in this segment also. And, the channel grouping of the "old" trunked systems is different from the table above in Chicago.

The 800 mHz band isn't as exotic or as difficult to listen to as you may have imagined. True, the range is more limited and the antenna you use (and even your location) may be critical. But with the knowledge you hopefully gained from this article, monitoring 800 mHz will be as much fun as it is in the bands we've been monitoring for years.

FEDERAL GOV'T
and
★ MILITARY ★

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:
Dennis Biagioli, 607 W. Pleasant Ave., Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

Hi! February is already upon us with snow, cold and dreary days. And those two holidays special to all from the Chicago area (for various reasons), Lincoln's Birthday and Valentine's Day. Let's see what the mail person brought this time.

MARK LANDGRAF wrote me with a discussion of railroads used by military installations. A list of "unconfirmed" railroad allocations includes:

Sunny Point Military Ocean Terminal	Southport, NC	165.1875
Ft. McClellan	Anniston, AL	173.0250
Ft. Gillian	Chattanooga, TN	173.4625
Redstone Arsenal	Huntsville, AL	163.5375
Radford Army Ammo. Plant	Radford, VA	163.5875

Bases having locomotives with installed radios are:
Ft. Carson, CO Hill AFB, UT Earle Naval Weapons Station, NJ

There is a list of bases having locomotives, but it is unknown as to whether or not radios are installed. The list is too extensive to print at this time.

The Department of Energy has railroad facilities at the following:
Albuquerque, NM, Operations
Bonneville Power Admin., Portland, OR
Oak Ridge, TN, Operations
Savannah River, Barnswell, SC, Operations (164.275 RR ops.)

Tennessee Valley Authority has the following confirmed usages of railroad radios:

Widows Creek Steam Plant RR ops.	Huntsville, AL	166.2750
John Sevier Steam Plant RR ops.	Rogersville, TN	166.2750
Kingston Steam Plant RR ops.	Harriman, TN	166.2750

The following facilities have locomotives, possibly on 166.275, but that is not confirmed:

Atomic Energy Comm. (NRC)	Oak Ridge, TN
Colbert Steam Plant	Pride, AL
Cumberland steam Plant	Cumberland, TN
Gallatin Steam Plant	Gallatin, TN
Johnsonville Steam Plant	Waverly, TN
New Johnsonville Steam Plane	New Johnsonville, TN
Paradise Steam Plant	Center City, KY
Shawnee Steam Plant	Grahamville, KY
Singleton Steam Plant	??
Watts Bar Dam	Spring City, TN
Wilson Dan	Sheffield, AL
National Fertilizer Delop. Cnt.	Muscle Shoals, AL

Mark suggests these ranges for those interested to search for Army and Air Force operations: 165.000 to 165.200 mHz, 163.500 to 163.600, and the frequencies 173.0250, 173.4625, 173.4125 and 173.5875. Suspected Navy range is between 140 and 144 mHz.

It seems this usage of railroads by Federal Government and Military is a subject not often discussed. Would anyone having some knowledge of this activity please drop me a line?

BOB POWERS (IA-033) sent the following frequencies in use at Ft. McCoy, near Sparta, Wisconsin.

Range Control
46.80 (firing units)
41.90 (aircraft)
247.40 (aircraft)

McCoy Army Airfield
38.50 (Primary)
41.70 (Alternate)

241.0 (Aircraft Primary)
229.4 (Alternate)
241.1 (Spare)
243.0 (Emergency)

124.6 (Air Primary)
121.5 (Emergency)

Volk Tower
236.6 (Tower)
275.8 (Ground)
126.2 (VHF Tower)

JOHN MARKS (WI-018) reports the following for the same place (but no confirmed usages at this time):

34.20	36.11	36.53	36.55
36.69	38.50	41.70	46.90
47.00	49.80	134.100	138.100
138.500	138.925	139.125	139.300
141.3500	143.0500	143.1000	143.2250
143.2500	143.3500	143.4000	

ED SIROVY (IL-004) prepared the following review on the very interesting book, "The Day After World War III".

The Day After World War III - The U.S. Governments Plans for Surviving A Nuclear War by Edward Zuckerman, Viking Press 1984, ISBN 0-670-25880-6 $18.95.

A mis-titled composition. It should read The Days During ... The U.S. Governments plans for fighting ... ! Wether you are a "hawk" or a "dove" you should read this book. It is a military education in current nuclear warfare tactics.

You ask what this has to do with radio communications monitoring. Well the stuff is in place and the radios are being used or tested and can be heard someplace with one exception. The Minuteman missiles that carry recorders and transmitters instead of warheads to notify our forces in the event all other methods fail wont transmit unless needed.

The book gives some details of a "Federal Relocation Arc" around Washington D.C. where the government expects to relocate. Some sights such as Mount Weather are hardened and maned by over 300 permanent employees, others are only motels. Of course Mount Weather found on some unclassified government road maps is probably zeroed in by the other side anyway. Some emergency teams are expected to remain in the basements of their agencies (along with the motor pool vehicles). Zuckerman writes "One agencies emergency coordinator,.... replied "I'm on the team that goes home and drinks gin and tonic until the bombdrops."". Some agencies provide for families, others do not. "...cadre group will be joined by regular employees... allowances will be made for those who are late".

The book explains the airborne command posts for military commanders and the National Command Authority (defined as The President, The Secretary of Defense, their designated successors or alternates). Please note the word alternates. Some flying command posts can launch missles even if the ground launch crew is dead. One of these aircraft was on display at Chicago for 1984 Armed Forces Day. They also contain flying swithboards. The National Command Authority aircraft can remain airborn with refueling for 72 hours between oil changes. (Wipe the windshield that would be covered with a radiation and thermal shield as would most SAC aircraft). The President can choose to hide out in one of over 80 secret underground "Presidential Emergency Facilities" throughout the country (nine within 25 minutes helicopter flying time of the White House). The White House also has a bomb shelter of some kind (Some kinda bomb shelter).

One of many scary tales told is of the alerting system. There are four command centers thatdetermine we are under attack; NORAD-Cheyenne Mt, SAC Hq.-Omaha, National Military Command Center-

Pentagon and Alternate National Military Command Center-Ft Ritchie. When one of the centers thinks it has enemies on its screens, SAC will send alert crews to start engines and standby and a "Missile Display Conference"."In the first six months of 1980", he writes, 69 of these conferances took place! If two systems report a threat, a "Threat Assessment Conference" is held. On Oct 3, 1979 an old rocket fell from orbit and was reported by radar as a submarine launched missile. On Nov 9, 1979 a War Games test program got into the main NORAD computer (How? Is the movie more accurate then we think?) and screens filled with a Soviet attack. On March 15, 1980 a Russian sub launched four missiles during training near the Kuril Islands and the red lights went on. On June 3, 1980 a chip failure lit up the screens with another massive Soviet attack! Thats only one nine month period.

Other reassuring goofups. Gerald Ford left the football locked in a safe in Air Force One in Paris. The FBI grabbed all of Reagans belongings when he was shot for evidence including his secret code ID card that proved he was the president and refused to give it back to the military.

Now that your getting scared, I'll tell you how he sez we'll fight a nuclear war. Nobody will launch all the bombs at once. Only part of the capacity will be used at first. Then each side will launch sattelites to check for survivors and fire off another round. If you survive the first round, stay in your shelters as you will never know when the war is over. As a SAC colonel once said, the kid (nation) with the last rock (missile) wins! At the end of the war, if an end can be determined, it is necessary to "shore up the postwar balance of power"."They (left over missiles) will preserve the post war peace by being a deterrent force." Just as they preserved the peace before the war! The last quote was from the chapter entitled "The Day Before World War IV".

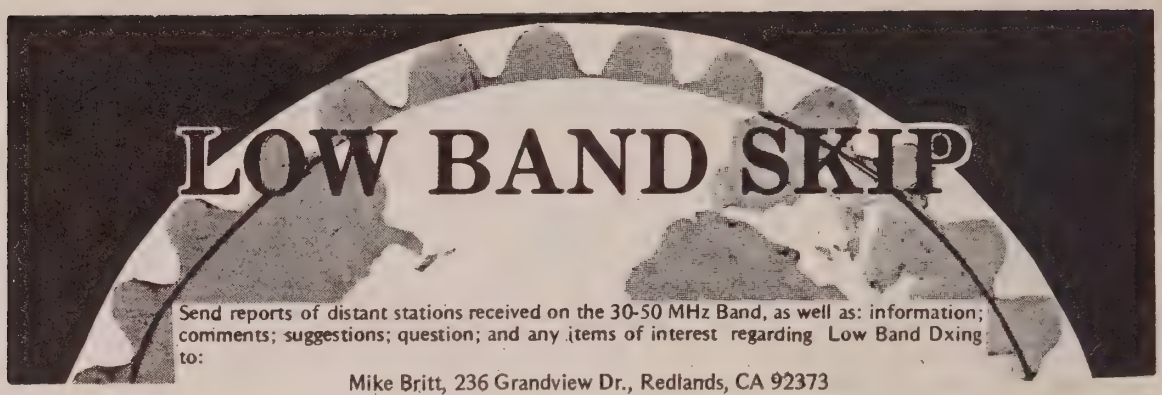
Black humor is everywhere in this book. "This presented an image of Joe Bureaucrat going to an incinerated post office to fill out an incinerated form." Like storing cash since the government may not be able to print replacement money, thats where their storing all those old $2 bills. You've heard of the Code of Federal Regulations, about 20-25 shelf feet of books, you'll love the Code of Emergency Federal Regulations. Many of you have heard the FOXTROT coded broadcasts on shortwave. These are messages that, if the the proper eight characters match, tell the bombers, subs and silos to go to war. They are to be passed by any and all means possible. If a crew thinks the message has not been received by another crew, they are required to pass the message along any way possible. "..if a rat crawls out of toilet with the proper message in his mouth, your supposed to launch."

On shelters, he reports some government advice. Dig a ditch, drive your car over it to cover it. Then fill your car with dirt and lay in the ditch. FEMA's computers twice a year print out the location of 2 million buildings that could be used as fallout shelters. The printout paper "could build a pretty good fallout shelter". An AEC commissioner"demonstrated a "poor mans shelter" of sandbags and old railroad ties" which was destroyed by a brush fire a couple of weeks later. One man said "This proves not only that there is a God but that he has a sense of humor.". It is quite obvious our strategy is no longer Mutually Assured Destruction (MAD) but Nuclear Utilization Target Selection (NUTS).

Well, all that stuff is out there. While you're listening for it, read the book.

That's it for another month. Take care -- and, stay well.

73's -
Denny



Send reports of distant stations received on the 30-50 MHz Band, as well as: information; comments; suggestions; question; and any items of interest regarding Low Band Dxing to:

Mike Britt, 236 Grandview Dr., Redlands, CA 92373

This month's Low Band Skip column debutes Chuck Robertson (IL-141) who essentially becomes co-editor of the column along with myself, Mike Britt.

This may seem surprizing , in light of recent events concerning the misuse of RCMA copyrighted material. However, my reasons for asking Chuck to join me in producing this column each month are twofold. Firstly, due to other commitments, over the last few months I've found myself increasingly short of the time needed to put together the type of Low Band Skip column I would like to. I had seriously considered resigning my editorship, but feared this would result in the death of the Low Band Skip column altogether. Thus, with a co-editor, the column will continue in much the same format, but I will not have to 'bear the burden' alone.

Secondly, after much discussion with Chuck, and others close to the incidents which led to my letter in the 'Thought Waves' column in the November, 1984 newsletter, it is obvious that Chuck was more the victim of circumstance (and a 'hatchet editor') than anything else. While having a great amount of information about low band skip, he has been frustrated in his efforts to share this information with RCMA members and other monitors at large. This new co-editorship will allow him to present some of his own first hand observations about this fascinating aspect of the monitoring hobby. (You will also find articles by Chuck appearing in recent and soon to be released issues of Bob Grove's 'Monitoring Times').

(Editors note: The following frequency list comes exclusively from the loggings of Chuck Robertson. All information and comments about these stations come from the monitoring and research of the author, and any similarity to previous reports of these stations is only coincidental. Additionally, the material is copyrighted and may not be reused or reproduced without the permission of the author or RCMA.)

TALES FROM THE SKIP ZONE

Hello, and welcome to the Skip Zone! I'm Chuck Robertson (IL-141) and I'll be writing the Low Band Skip column alternately with Mike Britt. This will give Mike a bit more time for his studies, work and women! And it will give me a chance to present my monthly catches (I'm so far behind in these contributions that they may be coming back into style, as they are almost a year old!). If you have any questions or suggestions concerning these articals send an SASE to the following addres:

Chuck Robertson
Rt 2 Box850
Creal Springs, IL
62922

Contributions should be sent to Mike, as that is still his job.

I know many of you are itchin' to know more about me. So, before you reach for the calamine lotion, here ya go:I'm a bachelor living in southern Illinois atop the Shawnee Ridge, which is a sandstone uplift extending from Battery Rock overlooking the Ohio River to Horseshoe Bluff overlooking the Mississippi Valley. I sell and install TV/CB/scanner antennas and towers plus act as handy man at my family's marina, campgrounds and various subdivisions on the Lake of Egypt. Low band skip became of interest to me due to the simple fact there's not much to monitor in rural southern Illinois. Also, I'm lucky to be situated in a relatively southern location, and di-

rectly north of Central America to boot! This makes for good reception of F_2 and multi-hop E_s skip from "south of the border".
As for "local" E_s skip, the nature of storm systems in North America often results in areas of E_s along a diagonal line extendig from the Gulf states along the East Coast into Canada. There are many times each year when New York and New Orleans skip in at the same time. The plains states are not as often heard.
The following log is from April 1984. The info is almost a year old, so it should give you something to shoot for in April 1985! Will these skips be heard again this spring?

From Chuck Robertson (IL-141) The late winter, early spring long haul skip pyrotechnics have continued into April! On 4/5/84 the MUF soared above 49MHz. And on 4/30/84 the Dutch West Indies Military operations on 33.65MHz were heard till 2210, over two hours past sunset here in southern Illinois. Not bad for a period of decreasing sunspot numbers! Also, two Venezuelan repeaters were logged rebroadcasting skip from U.S. petroleum businesses in Texas and Oklahoma. Identification of the station call signs proved that skip well above 48MHz was reaching South America!

Date: 4/4/84
31.48 Gulf Fleet Marine Corp. "Gulf Fleet 25 to HNG base. We're down in Peru." I suspect HNG base is located in Honduras or Mexico. "Betty G. to Martie de Felice." These two Gulf Fleet vessels were swapping crews near the semi-submersible oil exploration vessel Jupiter.
32.20 Guatemalan BI "Guato, Guato, Guato, cambio?" Regularly heard.
32.70 Spanish BI Pesos mentioned. 32.60 Spanish BI "Planta"
33.65 Telemetry followed by Dutch West Indies Military (English language)
36.00R-out Spanish Nicaragua, Guatemala and Costa Rica were mentioned often. "Halo, halo, aqui uno cero para Guatemala!" Loosely translated: Hello, here's one zero to Guatemala. "Adelante Nicaragua." Translation: Go ahead Nicaragua. This certainly is an interesting repeater! Are these bases actually located in Nicaragua and Guatemala?
36.20, 36.60, 36.80 & 36.94 Spanish Bogota mentioned on 36.80 (Colombia).
37.40 Spanish Military "No contesta." No answer.

Date: 4/5/84
29.76 Spanish "San Luis" Argentina 30.66 Spanish paging "San Pedro"
33.65 Dutch West Indies Military Base and ships Zero,"I take it you're coming up on Sauteurs. Is that correct, over?" Zero Two,"Roger, Zero. Either Friday night or Saturday, over." Sauteurs is located on the northern coast of Grenada. I previously reported this operation as originating in Surinam. But the wide use of English and Dutch, plus the frequent island hopping activities make an island military seem more likely. However, no solid ID has yet been made, even though comms are regularly heard. Most locations and destinations are coded. For instance, Sauteurs would appear to be "Red 200". One last note. The Kingdom of the Netherlands has control of defense for the Dutch West Indies territory. Some military personnel will be from the Netherlands. Others will be local island recruits. This accounts for the variety of Dutch and English dialects. Note: The frequencies 30.05 and 37.75 are also active.
37.35 Spanish Mil 39.18R-out "Parques Nacional" Venezuelan parks
40.00, 41.55, 41.83R-out, 42.04R-out, 42.14R-out, 42.20, 43.00, 43.05, 43.20, 43.40R-out, 43.90, 44.12, 44.40, 44.80R-out, 45.72, 47.58 & 48.95 Spanish Most of these are thought to originate in northern South America and Panama. Many South American repeaters known to rebroadcast U.S. skip were also active: 40.65, 41.14, 41.20, 41.35 & 41.62. See the July '84 and March '83 Low Band Skip columns for more details.
40.03 Tones, occasionally broken by Spanish BI comms. Two separate ops?
41.82 Repetitive rasping sound, broken by Spanish. Definately separate ops.
41.97R-out "Planta" Venezuela 41.98R-out "Planta Uno" Venezuela
42.12R-out Spanish Lots of noise on repeater. Could be skip interferance.
42.80R-out "Planta" This South American business repeater was rebroadcasting skip from U.S. businesses on 35.90MHz. The Georgia Power Company, KKE929,Juliette, Georgia, was ID'ed from the repeater. The only frequency licensed to KKE929 is 35.90MHz.

42.825R-out I first reported this repeater in the July '84 Low Band Skip column. It may be used by a bank, as names, numbers and cuentas (accounts) are contiuely mentioned. Tucupita (Venezuela) may be the site of one base. This frequency is paired with 42.875R-out, and both can be accessed simultaniously! On this day U.S. skip was being rebroadcast on the repeater. No ID's were made, but the input freq is thought to be 48.575 (see below).
42.85R-out "Planta" This Venezuelan repeater was rebroadcasting U.S. skip

from the frequency 48.60MHz. Here are the two businesses logged from the repeater: WSH413, AMOCO, Ratcliff City, Oklahoma, and KNAA539, ARCO Communications, Inglside, Texas. The ARCO call sign was in Morse code.

42.875R-out As mentioned above, this channel and 42.825R-out carry banking comms and are sometimes accessed simultaniously. This repeater was rebroadcasting U.S. skip from 48.62MHz. Sun Services, KKU786, Price, Texas, was ID'ed from the repeater. The U.S. skip suffered a noticeable degree of distortion, so I suspect the actual input may be 48.625MHz. Also, the other repeater used by this operation, 42.825, also had a slightly distorted rebroadcast of U.S. skip. If we assume for the sake of argument that both repeaters share the same arithmetic separation between input frequencies as between output frequencies (50KHz), then the 42.825 repeater would have an input of 48.575MHz. Now, look at the 42.85 repeater. Since it had no distortion of the repeated skip, 48.60 must be the precise input. This gives us a 25KHz spacing between all three inputs and outputs, and an overall 5.75MHz separation between each input and output! This apparent 5.75MHz pattern may very well be used by other repeaters in the vicinity. So, the next time the MUF hits 50MHz, check it out!

42.95 Spanish "Planta" 43.18 Staticy open carrier

43.25R-out Spanish radio count 45.08 Spanish "Central" "Luna"

43.70R-out Spanish with occasional U.S. business comms. This could have been repeated skip, but comms were too infrequent to tell.

44.27R-out Shared repeater, Fyzabad, Trinidad Businesses heard using the repeater include King's Wharf, water plant operations, petroleum operations, and ships. The Gulf Fleet Marine Corperation vessel Gulf Fleet 50 (Fifty-Fifty!) has also been heard usin the repeater. Many other Trinidad and Tobego frequencies were active this day, although signals were generally weak and scratchy. Refer to the April '83 and July '83 Low Band Skip columns for lists and discriptions of Trinidad and Tobego frequencies.

44.50R-out Spanish BI Numbers were being read. Heavy interference on rptr.

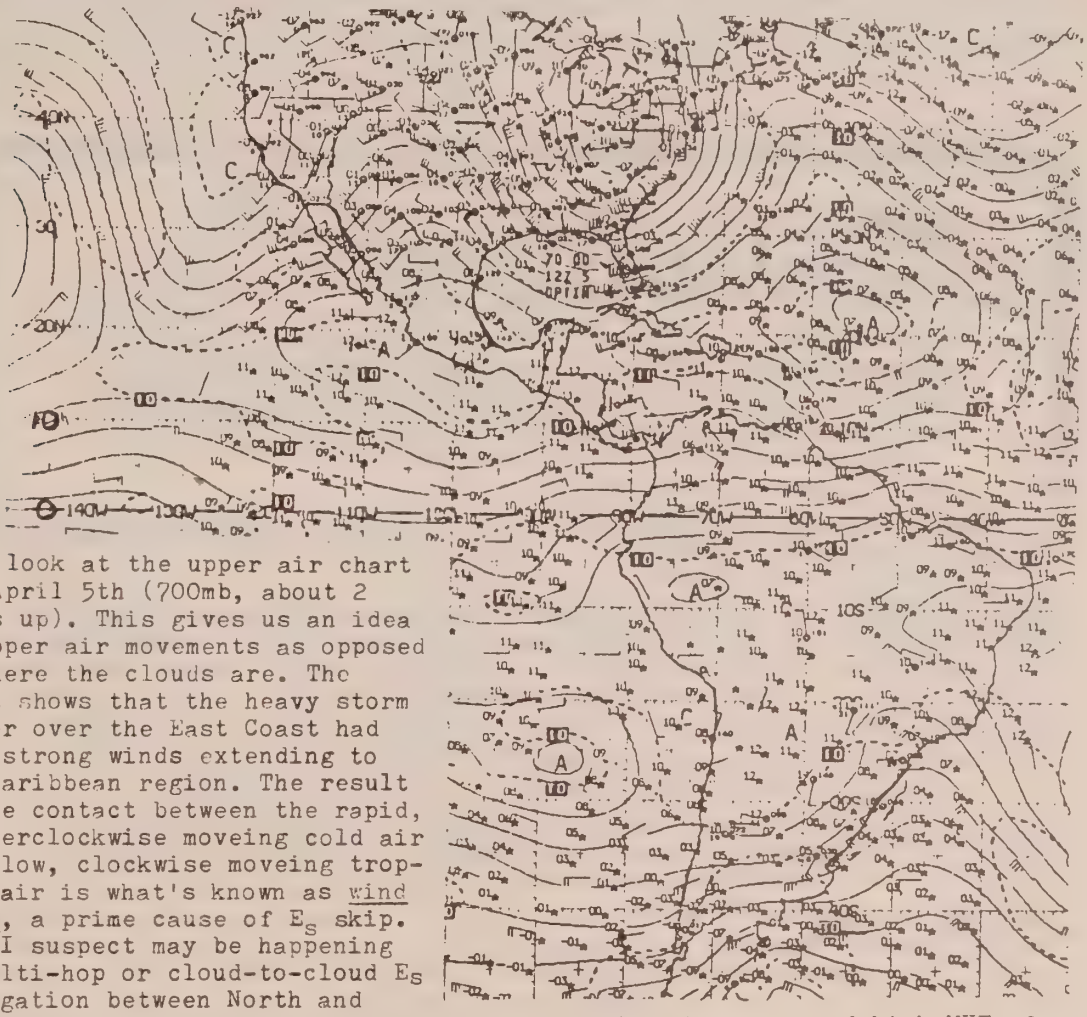
44.65 Spanish BI "Central" Names and numbers dispatched from "la Central".

45.10, 45.125, 45.70 Radio-telephones "Chitaga Control" mentioned on 45.10.

46.25 Spanish BI "Estacion" 49.60 "Secretario" "Cristoba" Panama

What forces of nature conspired to produce this unexpected avalanch of high MUF skip on April 5th? Well, I really don't know! So, I'll just report the observed qualities of the phenomenon, along with weather and solar data, and let you decide for yourself. First, an area of propagation seemed to be occurring along a line of 10° latitude, extending through Panama, northern South America, and out into the Atlantic, past Grenada. A second line of propagation extended along 30° latitude through the southern US.(I couldn't "hear" this area directly. It was only from the repeated skip heard over the South American repeaters that I concluded the southern US was producing high MUF skip.) Skip originating from other areas was practically nonexistent as monitored at my QTH. Weather conditions may hold the key to this puzzle. There were two active storm centers in North America. One moderate system was approaching the West Coast, bringing light showers. The second, on the East Coast, brought heavy, widespread showers and thunderstorms with flooding in some areas. Between these two systems a massive high pressure zone of tropical air extended into the plains states (it was a beautiful, sunshiny day in southern Illinois). An area of showers also occured in northern South America, but no heavy weather. There may also have been scattered lit. showers across

Central America. The satelite photo shows these occluded areas. (The photo was reproduced from Environmental Satelite Imagery, April 1985. This is a National Oceanic and Atmospheric Administration publication. By the way, I phoned the National Climatic Data Center, Ashville, NC, and the Space Environment Services Center, Boulder, Colorado, and asked if it would be OK for me to reprint this NOAA material for this article. They were happy to hear that their info might be of service. My thanks go to those who were so enthusiastic and helpfull! The upper air chart was from the National Climatic Data Center ($3.25 each). The info contained in Table 1 came from the Preliminary Report and Forcast of Solar Geophysical Data, published weekly by the joint NOAA-USAF Space Environment Services Center.)



Now, look at the upper air chart for April 5th (700mb, about 2 miles up). This gives us an idea of upper air movements as opposed to where the clouds are. The chart shows that the heavy storm center over the East Coast had very strong winds extending to the Caribbean region. The result of the contact between the rapid, counterclockwise moveing cold air and slow, clockwise moveing tropical air is what's known as wind shear, a prime cause of E_S skip. What I suspect may be happening is multi-hop or cloud-to-cloud E_S propagation between North and South America. This would account for the localized nature and high MUF of the observed phenom. But there may be other explanations, too!
Solar activity was somewhat higher in April than expected. The monthly mean sunspot level was 68.6, which is a high level of activity. And there were days when the sunspot numbers topped 100, more like the conditions in 1982 and 1983! It seems possible (if unexpected) that the skip logged on the 5th could have been F_2 in nature. (See table 1)

TABLE 1

Date	OTT 2800MHz	SSP	A	K-indices
4/2/84	139	109	33	5-3-4-4-4-4-5-5
4/3/84	128	112	41	5-5-3-5-5-4-5-5
4/4/84	129	118	51	5-5-4-3-4-6-6-6
4/5/84	119	89	35	5-5-4-3-3-4-5-5
4/6/84	113	107	12	4-3-2-1-2-2-3-3
4/7/84	108	69	19	3-2-2-5-3-2-4-4
4/8/84	101	60	36	4-5-5-5-4-3-4-5

Those of you familiar with George Jacobs' monthly Propagation column in CQ Magazine will have little or no trouble interpreting the data in Table 1. The A and K indices give an indication of geomagnetic intensity. The higher the numbers, the greater the activity. The K-index is taken every three hours, and values below 3 imply low geomagnetic activity, while numbers above 4 indicate radio storminess. A-indices with numbers less than 10 represent

low intensities, and numbers above 30, active periods. When geomagnetic idices are high, as they were on several days in April, E_s and aurora type propagation is likely. Conversely, F_2 skip will be less likely during these periods since radio signals will tend to be reflected off the E layer befor reaching the higher F_2 layer. The interrelationships between F_2 and E_s skip, and the solar and geomagnetic conditions is as yet unclear. (Refer to The Shortwave Propagation Handbook, 2ed Edition, by George Jacobs and Theodore J. Cohen, pages 132-134.) The OTT 2800MHz numbers (measured at Ottawa, Canada) and sunspot numbers (SSP) indicate possible F_2 openings. The higher the number, the better the chances. Both these #'s are indicators of solar flux. Considering the various forces in play on the 5th, I can only wounder what mechanism or mechanisms produced this amazing propagation!

* * * To be continued * * *

Marketplace

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:

RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550.

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

EDITOR'S COMMENT: I wish to apologize for the absence of last month's column. About the time I was due to sit down and type up this column I was hospitalized for a back injury. It turned out to be minor, but it still cost me over a week in the hospital. I'm up and around and back to work again. Also, not much has been coming in for publication. I should also mention that I have been receiving a number of requests to print CB equipment. Understand right now that only scanner related equipment can be printed in this column. OK? (12-2-84)

FOR SALE: Bearcat 300. Includes all accessories, manual and original box. Will ship UPS. $275.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (11-17-84)

FOR SALE: Regency ACT-R-106. 10 channel, AC/DC. Covers 30-50 Mhz, 146-174 Mhz, and 450-470 Mhz. Includes all accessories and ten crystals of your choice from my list (send SASE). $100.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (11-17-84)

FOR SALE: Crystals: Regency type (10.7 IF). 45 different frequencies. Send SASE for list. $2.50 each. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (11-17-84)

FOR SALE: Realistic Patrolman-3. Covers 540-1600 Khz, 144-174 Mhz, and 450-470 Mhz. Has squelch control. $25.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (11-17-84)

FOR SALE: Science Fair Globe Patrol. Covers 1.5-4.5 Mhz, 4.5-12 Mhz, 12-30 Mhz, and 550-1600 Khz. An inexpensive way to monitor HF. $25.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (11-17-84)

WANTED: Bearcat 210. $80.00. Contact: VERONICA SCOTTI (CA-OR-284), 9411 Chapman Ave., #163, Garden Grove, CA 92641 or phone 714-537-3516. No collect calls. Call Mon-Fri 1100-2000 PST / Sat-Sun 1200-2000 PST. (10-16-84)

FOR SALE: Bearcat 4/6 Thin-Scan. Hand-held scanner; complete package including AC adaptor, 6 crystals, charger and batteries. Rubber duck antenna included. Good condition. $70.00 or best offer. Contact: HOWARD ROSENBERG (MA-059), 8 Eisenhower Ave., Beverly, MA 01915 or phone 617-927-1177. (11-25-84)

FOR SALE: 22 Regency type crystals (10.7 IF) at $2.00 each. Send SASE for list of frequencies. Contact: CHUCK GYSI N2DUP (PA-005), P.O. Box 1119, Flemington, NJ 08822-5019. (10-15-84)

FOR SALE: Fanon-Courier SCMA-6. Excellent condition, with bracket. Power plug to scanner needs replacement due to frayed wire. $14.00/includes UPS pre-paid. Contact: LOUIS CAMPAGNA (PA-024), 7221 Rising Sun Ave., Suite 199, Philadelphia, PA 19111. (10-24-84)

FOR SALE OR TRADE: Scanner crystals. Used. $1.00 each or trade for your extra crystals. Send SASE for list. Contact: RICHARD STEDMAN (MA-071), 24 Mattoon St., Springfield, MA 01105. (11-15-84)

WANTED: Scanners, monitors, two-way radios, portables, mobiles, bases. Highest prices paid. Contact: WILLIAM M. MULLOWNEY (MA-029), P.O. Box 403, Everett, MA 02149 or phone 617-387-4676. (10-29-84)

FOR SALE: Mororola 2 watt 2 channel portable & charger. Model HT220. 154 Mhz. $175.00. Contact: WILLIAM M. MULLOWNEY (MA-029), P.O. Box 403, Everett, MA 02149 or phone 617-387-4676. (10-29-84)

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

No column this month

Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may not be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia, and Virginia:

William Mauldin, 2268 N.W. 30th Rd., Boca Raton, FL 33431

PUBLIC SAFETY SOUTHEAST

This month PUBLIC SAFETY SOUTHEAST covers the following areas and subjects:

Tampa Bay Civil Defense Network
Tampa Hurricane Evacuation Shelter Network
Tampa Disaster Control Network Users
Monitoring Pasco County, Florida
Greensboro, NC Fire Department Profile
Monitoring Augusta, Georgia Area

Updates and Corrections on Greater Atlanta area; Broward County FL area; Northwest Georgia; Moncks Corner, SC report; Central Pinellas County FL update; Richmond VA update and corrections; Florida Highway Patrol - Turnpike System update. Radio Shows are noted for February through April 1985. NC amateur repeater system is noted and listed!

TAMPA BAY CIVIL DEFENSE NETWORK

(Thanks to John (MD-006)

These radios and frequencies are available in the Tampa Emergency Operations Center:

Intercounty R.A.C.E.S.	KR4X	53.660 MHz; 146.160 MHz; 146.760 MHz; 147.840 MHz; 147.240 MHz (These are all amateur repeater channels.)
Statewide R.A.C.E.S.	KR4X	3990.5 KHz; 7254.5 KHz
Disaster Control	KGI579	153.920 MHz
County Port Authority	KYD806	156.015 MHz
Maritime Calling & Distress	(No Call)	156.800 MHz
U.S.C.G. Working Frequency	(No Call)	157.100 MHz
County Tax Appraiser	WAU727	453.550 MHz
Emergency Broadcasting Sys Alert	KFH640	161.760 MHz
Tampa Water Dept.	KCU99	453.900 MHz
Highway Maintenance	KJV57	159.000 MHz; 151.085 MHz
Fla. Intersystem Police	KNBC432	155.370 MHz
County Building & Zoning	KOO36	453.300 MHz (Also assigned to School Security)
Countywide EMS	(No Call)	155.220 MHz
Inter-Hospital Mass Casualty	KRB359	155.325 MHz
Central Fla. Area (LGR)	KWM867	39.180 MHz; 39.220 MHz
County Fire System	KFG602	154.130 MHz; 154.175 MHz
Tampa Fire Dept.	(No Call)	154.430 MHz; 154.220 MHz
MED Emergency Channels	(No Call)	MED 2, 6, 7, 8.

HURRICANE EVACUATION SHELTER NETWORK

(Tampa Bay Area - Continued)

The Tampa Bay Hurricane and Emergency Shelter Network operates on the standard two meter ham frequencies of: 145.410 MHz; 147.375 MHz; 146.760 MHz; 147.165 MHz; 147.105 MHz and on the Air Force Mars (Military Amateur Radio Service "MARS") frequency 143.450 MHz. These are all repeater output channels. These frequencies should be the first ones checked in the event of a major disaster in the Greater Tampa Bay area.

DISASTER CONTROL NET USERS

Tampa Bay Disaster Control Network operates on 153.920 MHz. The following is a listing of the stations authorized to be on this net during emergency operations:

Chief of Disaster*	Director*	Deputy Director*	Civil Defense Van*
USAF Disaster Van*	Medical Examiner*	Red Cross Van*	Tampa Ministries*
TECO Plant Security	Plant City Water	Red Cross HQ	So. FL Baptist Hosp
Tampa Fire Stat. #14	Plant City PD	Tampa Fire Disp.	WSUN EBS
Ruskin VFD Dispatch	USAF Police	V.A. Hospital	H.C.C. Security
USAF Weather Mac Dill	NOAA Weather	WTVT Weather	Temple Terrace FD

* Indicates that user is authorized a mobile unit.

Florida Health and Rehabilitative Services, District 6, Radio System is authorized the following frequencies: 224.740 MHz (Link via ham radio repeater); 7254.5 KHz HF frequency to EOC - CEFA Wildwood; 145.410 MHz (Amateur Repeater); and 146.820 MHz (Sarasota Amateur Repeater). Only repeater outputs are shown when repeaters are used.

PASCO COUNTY, FLORIDA

Thanks to Joe (MD-015)

Pasco County Sheriff Frequencies:

F1	45.660 MHz	Sheriff's Dispatch for westside of Pasco County
F2	45.620 MHz	Sheriff's Dispatch for eastide of Pasco County
F3	45.540 MHz	Sheriff's Department, use unknown
F4	45.860 MHz	Intercounty law enforcement network
F5	155.370 MHz	Florida statewide Intersystem
F6	154.950 MHz	Sheriff's Department, use unknown

Other General Interest Frequencies:

33.940 MHz	Pasco County Fire Department, countywide
45.920 MHz	Pasco County EMS Dispatch
462.975 MHz	Pasco County EMS Dispatch
156.120 MHz	Pasco County Highway Maint.
153.845 MHz	Pasco County Tax Collector
155.115 MHz	Pasco County Building & Zoning
806.812 MHz	Pasco County Utilities Commission
153.980 MHz	Pasco County Mosquito Control
45.740 MHz	New Port Richey Police Dispatch
154.445 MHz	New Port Richey Fire Dispatch
45.660 MHz	Port Richey Police Dispatch (Sheriff F1)
33.940 MHz	Port Richey Fire (Dispatched by Pasco FD)

GREENSBORO (N.C.) FIRE DEPARTMENT

(Thanks to American Fire Services, 39 Sherbrook Ave., Hartfort, CT 06106)

Greensboro, North Carolina - Fire Department:

Population:	157,000	Area:	54 Square Miles
Headquarters:	318 North Greene Street Greensboro, NC 27401	Firefighters:	294
		Workweek:	56 hours
Fire Calls:	4,640 Yearly		

Radio Frequencies & Assignments:

154.445 MHz	F1	General Operations, Repeater
154.145 MHz	F2	Fireground
153.950 MHz		Mobiles to repeater input
154.280 MHz		Mutual Aid

Stations & Equipment Assignments:

North Greene St,	Eng 1, Eng 2, Tanker 1, Tanker 2
Vine Street	Eng 3
Gorrell Street	Eng 4, Tanker 4
Radiance Drive	Eng 5, Tanker 3
Westover Terrace	Eng 6
Gatewood Avenue	Eng 7, W7, Skl 1
West Lee Street	Eng 8
Friendly Avenue	Eng 9, Tanker 5
High Point Road	Eng 10, W 10, Tanker 6
South Elm Street	Eng 11
Lawndale Avenue	Eng 12
Freeman Mill Rd	Eng 13
Rankin Avenue	Eng 14
Willow Street	Eng 15
Pomona Station	Eng 16

(Editors note: Guilford County has dispatch for County on 46.500 MHz, with the dispatch center located at the Greensboro Regional Airport.)

MONITORING AUGUSTA (GA) AND RICHMOND COUNTY

(Thanks to Steve, GA-053)

Steve sent us a considerable amount of information on the Augusta and Richmond County area. This listing is just some of that data. Additional codes and data will be in future issues. Steve asks that other members in his area contact him directly regarding RCMA. His phone number is 404-796-2067. He would like to hear from other local members.

General Frequency Listing - Augusta area:

31.100 MHz	Georgia Fish & Game	42.020 MHz	Georgia Intercounty Net (old)
153.740 MHz	Georgia Correctional Net	153.950 MHz	McDuffie County Fire
154.115 MHz	Gracewood State Hospital	154.145 MHz	Martinez Fire Dept.
154.190 MHz	F3 Richmond County FD	154.280 MHz	F2 Richmond County FD
154.280 MHz	Georgia State Fire Network	154.310 MHz	F1 Richmond County FD
154.430 MHz	Augusta Fire Dept.	154.680 MHz	Georgia State Patrol disp.
154.800 MHz	Georgia State Patrol car to base - base noted above on 154.680 MHz		
154.860 MHz	Medical College Security	154.905 MHz	Ga Intercounty Net
155.055 MHz	McDuffie County Sheriff	155.070 MHz	Swainsboro Police
155.085 MHz	Wrens Police Dept.	155.175 MHz	Ga Regional Hospital
155.175 MHz	Jefferson County EMT	155.175 MHz	N. Augusta Rescue
155.190 MHz	Jefferson County Sheriff	155.205 MHz	Richmond Co. Ambulance
155.265 MHz	Kings Ambulance Service	155.295 MHz	University Hospital Ambul.
155.310 MHz	Louisville Police	155.310 MHz	Burke County Sheriff
155.340 MHz	Aiken County EMS F1	155.340 MHz	Ga State Rescue Net
155.370 MHz	Ga Intercity Net	155.400 MHz	Aiken County EMS F1
155.625 MHz	Harlem Police Dept.	155.655 MHz	Columbia Co. Sheriff
155.805 MHz	Hephzibah Fire Dept.	460.500 MHz	Columbia Co. Sheriff
155.890 MHz	Richmond Co. Board of Ed.	156.150 MHz	Richmond Marshals Office
158.775 MHz	North Augusta Fire Dept.	412.850 MHz	MP's Ft. Gordon
434.250 MHz	Military Police, Ft Gordon	413.050 MHz	MP's Ft. Gordon
434.450 MHz	Military Police, Ft.Gordon	453.150 MHz	Aiken County Sheriff
453.550 MHz	Aiken County Sheriff	453.650 MHz	Aiken City Police
453.750 MHz	North Augusta Police	460.050 MHz	Augusta Police F2
460.175 MHz	Richmond County Sheriff F2	460.250 MHz	Richmond Co. Sheriff F1
460.300 MHz	Augusta Police F1	460.500 MHz	Augusta area PD network

Richmond County Signals:

These "codes" are used with 10-98 for more detailed information:

1	Gone on arrival	7	Traffic ticket
2	Unfounded	8	Traffic warning
3	No action taken	9	Investigation
4	Make report	10	Arrest made
5	Indident report	11	Open jail gates
6	Accident report	12	Warrant issued

Dispatch Signals:

1	Hit & run	19	Bank alarm (coded locations)
2	Accident (with data)	20	Jail break
3	Road block	21	Call Captain
4	Speeding auto	22	Burglar alarm (coded locations)
5	Drunk driver	23	Call Headquarters
6	Drunk person	24	Call your office
7	Fight or disorder	25	Go to office
8	Armed robbery	26	Go to headquarters
9	Burglary (9A = Attemped)	27	Go to sub-station
10	Discharge firearms	28	Contact investigator on duty
11	Murder report	29	Family trouble
12	Suicide (12A = Attempted)	30	Riot
13	Suspicious person	31	Rape
14	Suspicious auto	32	Officer needs help
15	Escaped criminal	33	Investigate (33A Racial disturbance)
16	Demented person	34	How do you read this unit?
17	Fire (17A = Attempted)	35	Drivers license check
18	Transporting liquior	36	Call substation
		37	Bomb threat
	(Some numbers are reserved, as noted)	38	Item cancelled
		40	Accident on private property
	(Ten Signals are standard GA Police)	45	Call cornor

Comments: Steve notes that Columbia County is IDed as "Headquarters"; Richmond County IDed as "Headquarters"; and Augusta PD as "Control". The ten signals were submitted with the material, however, since they are mostly stardard, I have omitted them in this report. I will print the EMS codes for this area in an upcoming issue. Thanks, Steve, for a very nice report on the Greater Augusta area!

CORRECTIONS AND UPDATES

The following members submitted updates and corrections regarding past articles. To be completely up to date, correct your notes or past issues regarding the following:

From Mike, GA-004: 453.200 MHz is the DeKalb County School Security frequency and not the DeKalb County Police as printed. Georgia Emergency Management gives the Georgia forecast on 45.560 MHz every four hours, starting at midnight local time. Frequency 460.175 MHz is used mainly by small towns in Gwinnett County and by the Sheriff's Department. The Gwinnett County EMS and Gwinnett Hospital are now using 155.295 MHz.

Scott, FL-033: Responds to the recent PS/NC Survey with this listing of what he is listening to on his scanners... Sunrise PD on 45.500 MHz; Sunrise Fire Rescue on 453.775 MHz; Florida Highway Patrol Broward County on 154.680 MHz; Broward County Fire on 154.250 MHz; Broward County Sheriff on 154.710 MHz (Dist 1), 155.130 MHz (Dist 3), 154.860 MHz (Dists 2,4,6); Broward County Paramedics on 471.1125 MHz; Ft. Lauderdale PD on 460.050 MHz and 460.100 MHz; Ft. Lauderdale Fire on 460.125 MHz and 470.6375 MHz; Broward County Paramedics F4 truck to truck on 471.1375 MHz; Broward County Sheriff and western area cities car to car frequencies of 155.070 MHz & 154.950 MHz; Sunrise Public Works on 451.625 MHz; Atlanta Ambulance dispatch on 155.205 MHz; Pompano Beach PD on 470.7375 MHz; Pompano Beach FD on 154.160 MHz; Broward County Traffic Engineering on 471.0625 MHz; Plantation FD on 154.445 MHz and Dispatch for Tamarac, Margate, North Lauderdale PDs on 154.890 MHz. Nice listing for Ft. Lauderdale and Broward County!

Jeff, GA-027: Blairsville GA PD on 155.580 MHz; Gainesville GA PD on 155.250 MHz; U.S. Army Rangers in his area can be heard on 34.100 MHz and 34.500 MHz.

Stephen, (SC-???): Responds to the survey with a listing on the Moncks Corner, SC area! Berkelry County on 155.130 MHz; Moncks Corner PD 154.740 MHz; SC Highway Patrol on 42.100 MHz; USN Charleston on 150.550 MHz. Stephen asks that we print more data from South Carolina! I would like to see it also! How about it, SC Members!!

Joe, MD-015: Working on his ham license!! Great, Joe! Hope to catch you on the air soon! Joe also sends in this update on Central Pinellas Dispatch now operating on 154.355 MHz and 154.310 MHz. Here is an updated station location listing from Joe on this system:

Station #27 and #28 are Indian Rocks Beach; #29 & #31 are Seminole; #30, #32, #39 are Largo; #36 is Pinellas Park; #40 High Point VFD; #41 downtown Largo HQ; #42 Belcher Road, Largo; #43 Bellair Beach; #52 & #53 are Safety Harbor; #54 is Oldsmar; #57 is East Lake FD; #66 & #67 are Palm Harbor; and not on line yet are #60 and #61 in Dunedin and Clearwater.

Allen, VA-087: Sends the following updates regarding last months article on the Greater Richmond! Interested members should correct data in last months Newsletter! Henrico FD: F1 154.340 MHz; F2 154.430 MHz; F4 154.295 MHz (Hanover, Henrico & Richmond). Goochland County FD fire/rescue dispatch is 154.940 MHz. Richmond General Interest, 151.100 MHz is Metro Authority for Downtown Expressway, Powhite Parkway and Blvd. Bridge. Richmond EMS should show 119 for DOA's; 114 and 122 are regular rescue; CVAS Wheelchair vans are on 461.150 MHz rather than 461.750 MHz and callsign is WQF541. Richmond Rescue dispatching on 155.280 MHz is Richmond Paramedical Services, units 11-29. Henrico EMS rescue units all have police F1 (460.225 MHz) and central dispatch system is presently being discussed. Henrico Rescue IDs 21-29 are Tuckahoe units; and Tuckahoe #22 is water rescue unit. The Forest Hill Station and Midlothian Stations are part of the Forest View Volunteer Rescue Squad. VCU Police F1 is 155.595 MHz, repeater, callsigned KJK797. Capitol PD 155.490 MHz is F1, and F2 is 155.130 MHz (users go to F1 during other than normal business hours). Virginia Museum of Fine Arts is 453.225 MHz. Virginia Forestry is 159.465 MHz (repeater input is 151.900 MHz), with simplex operations on 151.370 MHz. Virginia Fish & Game is 159.435 MHz (repeater input is 151.340 MHz) with simplex operations on 151.430 MHz. Virginia State Police, Division #1, base is 159.000 MHz. Virginia Office of Emergency Services uses 155.820 MHz simplex, paging and 155.895 MHz repeater with 158.820 MHz as input. State Capitol Building operations heard on 453.725 MHz. Allen also notes that his Yaesu FT-208R handheld (Serial #3L330337) was stolen. If Virginia members see one at a flea market, contact Det. Shook at the Richmond PD.

Florida Highway Patrol - Turnpike System - has started using regular patrol ID numbers for the trooper on the 453.575 MHz Turnpike System. Correct article (RCMA NEWSLETTER, OCT 84) to show the 200 and 300 ID numbers are no longer being used for FHP troopers. Toll Plaza IDs are now just "Exit (number)" instead of the number "4" before the toll ticket ID number for each exit. For example, the Delray Beach toll plaza is now just Exit 32 instead of "432". More to come on this, as soon as I have time to monitor the system. (editor)

FROM THE CAPTAIN'S DESK

Two Virginia members, Allen and John, have recently made Virginia one of our best areas for RCMA coverage! I have long said that if you want to read about your state or area, you must start it by sending in something. Editors can't print what they don't have. We are members just like you, the reader, and we can't monitor all of our area nor take the data from Police Call, Code 20 the Fox Scanner listings and just print them. I have long said that the best way to get input on an area is to print something on that area. Others in that area read the material, see what you have and don't have, and send in their contribution! Updates and corrections follow. Allen and John have brought about considerable interest in the Richmond area recently. When you add this to the active group that we have in the Metro DC area, you have super coverage on an area. When I took over PS/SE, Virginia was one of the most difficult areas to get material on. You guys are doing a great job. Keep it up! For the rest of you out there, if you want to see your area covered - start it by sending in what little you might have! I have a super listing for Northern Virginia coming soon!

Interesting listening! We all know about amateur repeaters in the 145 to 147 MHz bands, but in North Carolina there is something a little different going on. K4ITL, Danny, started it when he put up the wide coverage repeater in Raleigh on 146.880 MHz, then another wide coverage repeater on Green Mountain (near Sparta, just off the Blue Ridge Parkway) on 145.430 MHz. Now, via 220 MHz link frequencies and touch tones to turn the links on and off, the hams in North Carolina have a linked repeater network! The repeaters on the network are: 146.880 MHz in Raleigh; 145.430 MHz on Green Mountain; 145.130 MHz on Lookout Mountain, Galax VA; 145.370 MHz in North Wilksboro NC; 146.640 MHz in Winston Salem NC; 147.255 MHz in Asheboro NC; 145.350 MHz in Greenville NC; and 146.820 MHz in Wilmington NC. This network is activated each Wednesday night at 8:30 PM for the CVRA NET. It just goes to show what an extensive area can be covered with VHF radio, with a little effort. You might enjoy listening in and seeing how far away the hams are when they check in! This system was in use during the hurricane emergency in NC, and is there for future emergency use! Other wide area ham repeaters are 145.190 MHz on Mt. Mitchell and 146.685 MHz in Grifton NC. There are also two wide area repeaters near Greenville NC on 145.350 MHz and 147.090 MHz.

FCC, ARRL, ARES, and DX information is broadcast on the 146.940 MHz amateur repeater in Richmond, Virginia each Monday night at 9PM.

Radio Shows: The following events are scheduled as listed. *Indicates dates based on the event of last year. Monitor local ham repeaters for direction conversations and general data!

Feb 2 & 3: The Tropical Hamfest at Flagler Dog Track in Coral Gables FL! This is a BIG one with lots of flea market items and dealer displays. Admission $5.00 both days.

Feb 17: The Winter Hamfest will be held at Elkin, NC

Feb 24: Annual Hamfest at Fayetteville, WV

Feb 24: Annual Winterfest at Vienna, VA

Mar 9 & 10: The BIG Hamcation of Orlando, FL. This is one of the really BIG shows for Central Florida and usually brings out lots of flea market stuff and dealer displays! No information on location at print time. Call AES for details in Orlando.

Mar 16 & 17: The BIG Annual Charlotte Ham and Computer show in Charlotte. Again, I do not have details on location at press time, but this is a BIG one for NC!

Mar 30 & 31:* The Annual Hamfest of Columbus GA

Apr 7:* Kennehoochie GA Hamfest

Apr 14: Annual Raleigh NC Hamfest (One day only!)

Apr 14:* Hamfest scheduled for Kennesaw, GA

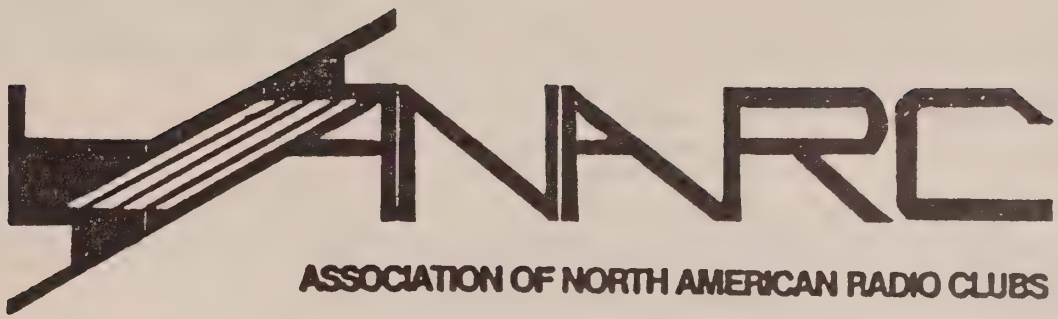
Apr 20:* Hamfest at Oak Ridge, TN

Apr 19 - 21:* "Baloneyfest" at Henry Horton State Park, TN

Apr 26 - 28:* THE BIGGEST OF THEM ALL - Dayton, OH Hamvention

The information regarding the above events is courtsey CVRA Repeater Journal, Southeastern Repeater Association. We again thank CVRA for their assistance and information!

The column, Public Safety Southeast for February 1985, is a collection of data furnished by members of RCMA. The editor wishes to thank those who made this months column possible! If your section was not covered this month, your contribution will be most welcome & is encouraged! If nothing else, just send in a list of what you monitor! (((73s))) Bill, WG4R



ANARC CLUB LIST

Revised: August, 1984

WHAT IS ANARC?

The Association of North American Radio Clubs (ANARC) was founded in 1964 as a uniting organization for the non-profit hobby radio listening clubs in North America. All ANARC member clubs are reliable, responsible volunteer organizations. Full member clubs are generally older and larger than Probationary member clubs, but both groups meet ANARC's membership standards.

ANARC's objectives are to promote closer ties among radio clubs, to promote the interchange of information and ideas among member clubs, to work for the common good of the hobby, and to provide a medium to speak out for radio clubs and listeners in North America.

ANARC holds an annual summertime convention at a different site in North America each year. Listeners from all over the world attend the convention, which is usually three days long and filled with discussions, demonstrations, exhibits, speeches, and presentations. ANARC conventions offer unique opportunities for listeners and broadcasters to meet with others who share their hobbies, interests, and professions.

ANARC publishes a monthly newsletter of interest to SW listeners. A subscription to the monthly ANARC NEWSLETTER is available for $7.50 in NA; $10.00 elsewhere.

Sample copies are 60 cents and a SASE in USA; 75 cents in mint stamps in Canada or 4 IRCs elsewhere. Additional copies of the ANARC CLUB LIST are available for 25 cents and a SASE in the USA; 50 cents in mint stamps in Canada or 3 IRCs elsewhere. These publications may be ordered from

ANARC PUBLISHER, 1500 BUNBURY DRIVE, N. WHITTIER, CA 90601, U.S.A.

TERMS AND ABBREVIATIONS USED IN THIS LIST

DUES:	Annual membership fee, which includes receipt of the club's publication. North American amount applies to USA, Canada & Mexico. Overseas amount applies to the rest of the world. All fees are in US currency unless otherwise specified. Overseas fees include airmail delivery unless otherwise indicated.
HQ:	Club headquarters address.
IRC:	International Reply Coupon - available at most post offices.
LW:	Longwave band
MW:	Mediumwave (AM) band
NA:	North America
Sample:	Sample copy of the club's publication.
SASE:	Self Addressed Stamped Envelope, business size (#10).
SW/SWL:	Shortwave/shortwave listener/shortwave listening.

* * * * ANARC FULL MEMBER CLUBS * * * *

AMERICAN SHORTWAVE LISTENERS CLUB (ASWLC) Founded in 1964

Address:	16182 Ballad Lane, Huntington Beach, CA 92649 USA
Coverage:	SW, MW, utilities
Publication:	"SWL", monthly
Dues:	$18.00 worlwide, first class or surface mail
Sample:	$2.00; overseas 8 IRCs

ASSOCIATION OF CLANDESTINE radio ENTHUSIASTS (A* C* E.) Founded in 1981

Address:	P.O.Box 452, Moorehead, MN 56560 USA
Coverage:	Clandestine and pirate stations
Publication:	"ACE", monthly
Dues:	USA $8.50; Canada/Mexico $9.00; overseas airmail $14,00; overseas surface mail $11.00.
Sample:	$1.00

CANADIAN HANDICAPPED AID PROGRAM (CHAP) Founded in 1972

Address:	P.O.Box 1143, Pointe Claire, PQ H9S 4H9 Canada
Coverage:	Same as HAP-USA
Publication:	Same as HAP-USA
	All physically handicapped and shut-ins residing in Canada are eligible for membership. Write to CHAP HQ for details of services

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CANADIAN INTERNATIONAL DX CLUB (CIDX) Founded in 1962

Address:	6815 12th Avenue, Edmonton, AB, T6K 3J6 Canada
Coverage:	All wave
Publication:	"CIDX Messenger", monthly
Dues:	USA $18.00, Canada C$19.00, elsewhere $23.00 (in Canadian funds)
Sample:	NA $1.00; overseas 4 IRCs

CLUB ONDES COURTES DU QUEBEC (COCQ) Founded in 1974

Address:	C.P. 37, Succ. Youville, Montreal, PQ H2P 2V2, Canada
Coverage:	SW, MW, ham, utilities
Publication:	"L'Onde", monthly (in French)
Dues:	Canada/USA $29.00; elsewhere $31.00
Sample:	NA $1.50; overseas 5 IRCs

HANDICAPPED AID PROGRAM USA INC. (HAP-USA) Founded in 1972

Address:	2105 N. Illinois, Arlington, VA 22205 USA
Coverage:	Promotes shortwave radio for the physically disabled and housebound, through education and services.
Publication:	"HAP-penings", monthly (center insert of ANARC Newsletter); extensive cassette tape library available to members
Dues:	None to qualified members
Sample:	Not available. All physically handicapped persons in USA are eligible for membership. Write HAP-USA for details of services.

INTERNATIONAL RADIO CLUB OF AMERICA (IRCA) Founded in 1964

Address:	P.O.Box 26254, San Francisco, CA 94126 USA
Coverage:	MW
Publication:	"DX Monitor", 34 issues annually
Dues:	$20.00 USA & Surface Mail overseas; $26.00 to Canada. $27.00 airmail to Central America, Colombia, Venezuela and the Caribbean; $30.00 to the rest of Latin America, W. Europe, N. Africa and the Middle East; $34.00 to the rest of the world.
Sample:	NA $0.50, overseas 3 IRCs

LONGWAVE CLUB OF AMERICA (LWCA) Founded in 1974

Address:	45 Wildflower Road, Levittown, PA 19057 USA
Coverage:	LW
Publication:	"The Lowdown", monthly
Dues:	NA $10.00; overseas $18.00
Sample:	NA $0.85; overseas 5 IRCs

MIAMI VALLEY DX CLUB (MVDXC) Founded in 1973

Address:	4666 Larkhall Ln., Columbus, OH 43229, USA
Coverage:	All wave, with emphasis on SW
Publication:	"DX World", monthly
Dues:	NA $7.00; overseas write to HQ for rates.
Sample:	NA $0.75; overseas 6 IRCs

MINNESOTA DX CLUB (MDXC) Founded in 1973

Address:	5212 Drew Ave. South, Minneapolis, MN 55410 USA
Coverage:	SW, MW, utilities
Activities:	Meetings are held monthly in the Minneapolis area Send a SASE for dates and details. "MDXC Newsletter" sent to members only. Membership limited to residents of Minnesota

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NATIONAL RADIO CLUB (NRC) Founded in 1933

Address:	P.O.Box 118, Poquonock, CT 06064 USA
Coverage:	MW
Publication:	"DX News", 30 issues annually
Dues:	USA $20.00; Canada $21.00; other countries write to HQ for details and rates
Sample:	NA $0.60; overseas 3 IRCs

NORTH AMERICAN SHORTWAVE ASSOCIATION (NASWA) Founded in 1961

Address:	45 Wildflower Rd., Levittown, PA 19057, USA
Coverage:	SW
Publication:	"FRENDX", monthly.
Dues:	NA $16.00; Cent.Am/Carib./S. America/Europe $25.00 Africa/Asia/Pacific $28.00; worldwide by surface mail $16.00
Sample:	NA $1.00; overseas $2.00

ONTARIO DX ASSOCIATION (ODXA) Founded in 1974

Address:	P.O.Box 232, Station Z, Toronto, ON M5N 2Z4,Canada
Coverage:	SW, MW
Publication:	"DX Ontario", monthly
Dues:	Canada and USA $20.00; elsewher $25.00
Sample:	$1.50 worldwide

RADIO COMMUNICATIONS MONITORING ASSOCIATION (RCMA) Founded in 1975

Address:	P.O.Box 542, Silverado, CA 92676, USA
Coverage:	VHF/UHF public service bands, SW utilities
Publication:	"RCMA Newsletter", monthly
Dues:	USA $16.50; Canada/Mexico $18.50; Europe $20.00; Asia/Pacific $21.50
Sample:	NA $1.00, overseas 6 IRCs

SOCIETY TO PRESERVE THE ENGROSSING ENJOYMENT OF DXING (SPEEDX) Founded in 1971

Address:	7738 E. Hampton, Tucson, AZ 85715, USA
Coverage:	SW, utilities
Publication:	"SPEEDX", monthly
Dues:	NA $18.00; Carib/Cent.Am $24.00; Europe/S.Am $28.00; Asia/Pacific/Africa/USSR $31.00; surface mail worldwide $18.00
Sample:	NA $1.50; overseas $2.00 or 8 IRCs

WASHINGTON AREA DX ASSOCIATION (WADXA) Founded in 1978

Address:	606 Forest Glen, Silver Spring, MD 20901 USA
Coverage:	SW, MW, utilities
Publication:	"WADXA News", quarterly
Activities:	Meetings held regularly in the Washington, DC area

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WORLDWIDE TV-FM DX ASSOCIATION (WTFDA) Founded in 1967

Address:	P.O.Box 514, Buffalo, NY 14205 USA
Coverage:	TV, FM, VHF/UHF public service bands.
Publication:	"VHF/UHF Digest", monthly
Dues:	NA $15.00; overseas $24.00
Sample:	NA $1.00; overseas 6 IRCs

* * * * ANARC PROBATIONARY MEMBER CLUBS * * * *

ASSOCIATION OF DX REPORTERS (ADXR) Founded in 1982
Address: 7008 Plymouth Rd.,Baltimore, MD 21208
Coverage: Allwave
Publication: "DX Reporter", monthly
Dues: NA $15.00; overseas surface mail $17.00
Sample: $1.00

* * * *ANARC AFFILIATE ORGANIZATIONS* * * *

EUROPEAN DX COUNCIL (EDXC) Founded in 1965
Address: P.O.Box 4, St.Ives, Huntingdon, Cambs PE17 4FE, England
Coverage: EDXC is the European equivalent of ANARC
Publication: "EDXC Newsletter", 10 times per year
Dues: Send 3 IRCs for list of member clubs

SOUTH PACIFIC ASSOCIATION OF RADIO CLUBS (SPARC) Founded in 1982
Address: P.O.Box 1313, Invercagill, New Zealand
Coverage: SPARC is the equivalent of ANARC in the South Pacific
Dues: Send 3 IRCs for list of member clubs

IMPORTANT NOTICE!

From time to time, for varying reasons beyond our control, our member Clubs must raise, (in some cases, lower) their dues and also change the location of their Headquarters' address and although we do our best to keep up with these changes through their input, the normal revision schedule of this Club List is that of twice a year. In extreme circumstances we will update it more often, but we must advise you on two very important points:

1) Check FIRST with the Club of your choice to see if there have been any significant changes in either dues or HQ address,before you send any funds for membership.

2) Last but certainly not least, if you require an answer to a specific question or problem, please include with your request a SASE (Self Addressed, Stamped Envelope, #10 business size, preferably), because none of these clubs are profit making enterprises and with postage costs rising so much, your gesture will be greatly appreciated as well and will surely get you a speedy answer. Good luck, and happy DXing!

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS
ANARC

PUBLIC SAFETY — NORTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — New England states, New York, Pennsylvania, New Jersey, Maryland, Delaware, and District of Columbia:

Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

Welcome to the Northeast. This month we have part one of my Massachusetts community supplement. In this report you'll find public safety listing for every city and town in the state along with call signs. Over the upcoming months I'll print various sections of this list with, probably, reports from other states as well. We should have our sub-column editors starting up soon and I hope to have something for you soon from D.C., metro Philadelphia and New York. To send in information to our New York and Philadelphia editors, send your data in to me for the time being. These editors will print their post office boxes in upcoming articles. For the D.C. editor, Rick Schneider, write to him at 234 North Washington, Rockville, MD 20850. On with the great state of Massachusetts:

ABINGTON
483.0125 Police (KAB239)
482.--- Plymouth County Police Net
33.800 Fire (KCD823) (KTE698)
33.900 Plymouth County Fire (KCD823)
154.295 Southeast Fire Net (KCD823)
158.805 Civil Defense (WQL493-7)
158.805 Highway Department (KLY297)
158.895 Water Department (WQQ344)

ACTON
155.010 Police (KCB875)
155.250 Police Channel Two (KCB875)
39.380 So. Middlesex Police (KCB875)
46.500 Fire (KCD310)
46.400 Fire (KCD310)
33.980 So. Middlesex Fire Net (KCD310)
33.660 No. Middlesex Fire Net (KCD310)
462.700 Civil Defense (KAD5995)

ACUSHNET
482.8125 Police (KZM468)
482.5125 Bristol County Police Net
45.600 Fire (KCK966)
46.180 Bristol County Fire (KNON830)
45.600 Highway Dept. (KNDN831-2)
39.820 Civil Defense/PD (KNON833-4)

ADAMS
155.130 Police (KNDA824)
156.210 North Adams tie-in (KNDA824)
154.740 Berkshire County PD (same)
154.310 Fire (KNGY914, KNHJ799)
45.120 Municipal Services (KCZ466)
156.225 Highway Department

AGAWAM
155.790 Police (KNBU292)
460.225 WEMLEC Police Net (WBC447)
154.235 Fire (KNGN400)
33.520 Hampden County Fire (KNGN400)
155.055 Highway Department (KCK524)
158.940 Treatment Plant

AMESBURY
482.8375 Police
482.3625 Police Channel Two
482.3625 Regional Police Simplex
154.145 Fire (KCV354)
154.070 Essex County Fire (KCV354)
154.010 Merrimac Fire tie (KCV354)
154.190 Southern N.H. tie (KCV354)
153.875 Civil Defense
155.805 Housing Authority (WRG827)
155.805 Highway Department (KNCC455)

AMHERST
460.150 Police (KEG250)
460.175 Police Channel 2 (KEG250)
460.325 Police Tactical (KEG250)
158.820 Hadley-Belchertown PD tie
460.225 WEMLEC Police Net (WBC448)
154.370 Fire/Hampshire Cty. (KCH729)-51
155.145 Belchertown Fire tie
153.890 Fireground Ops. (WZY360)
154.855 Fire Administration
33.540 Tri-State Fire Net (KCH729)
159.135 Highway Department
45.920 5 Colleges Transit (KNBJ262)
156.075, 151.085, 150.995 UMass Maint.

ANDOVER
482.6125 Police (WIE665)
482.--- NEMLEC Police Net (WIE666)
33.660 Fire (KCF313/KJD876/KRM831)
154.070 Essex County Fire Net (KCF313)
151.130 Highway Department
39.100 Community Development (KCB262)
39.100 Civil Defesne (WAN2323)

ARLINGTON
471.1625 Police (KZN839)
470.--- BAPERN Police Net
460.600 Fire (KSL418)
460.550 Fire -Mobiles (KR8627)
482.3125 Metrofire (KCR311)
158.760 Highway/C.D./Fire-amb.(KBC888)
158.805 Municipal Services (KNBZ682)
156.000 Mass. Mental Health/158.745
47.460 Armstrong Ambulance (KLG550)

ASHBURNHAM
39.220 Police (KCT659)
33.820 Fire (KCB404)
33.700 Mid-State Fire (KCB404)-2
45.200 Highway/Power (KCT659)

ASHBY
155.715 Police/Fire/Highways (KFF298)

ASHLAND
39.480 Police (KNCE706)
39.380 So. Middlesex Police (KNCE706)
46.460 Fire (KCF945, KWO352)
33.980 So. Middlesex Fire (KCF945)
158.940 Municipal Services (KQR329)

ATHOL
39.220 Police (KCA682)
33.480 Fire (KCD598)

33.540 Fire/Mutual Aid (KCD598)
33.700 Mid-State Fire (KCD598)-3
158.775 Highway Department (KGY295)
50.465 Mass. C.D. Sector #3E

ATTLEBORO
39.740 Police (KQL655, KCA877)
39.540 Police Backup, Area tie
46.320 Fire (KCC341/KMK301/WZX833-5)
46.180 Bristol County Fire (same)
156.165 Highway/Water/Pollution Cntrl.
47.500 Ambulance/C.D./WARA Radio

AUBURN
155.550 Police (KNDD874)
158.760 Fire (KAT540)
33.620 So. Worcester Fire (KBT465)-20
158.760 Highway Department (KAT540)
153.455 Water District (KUI394)

AVON
155.730 Police (KIC271)
46.140 Fire (KCD727)
154.295 Southeast Fire Net (KCD727)
158.925 Municipal Services (KTI570)
158.895 Area Municipal Net (WYE340)
158.955 Area Municipal Net (WYE340)

AYER
39.420 Police (KCF802)
155.475 Regional Police tie/Secondary
46.140 Fire (KAQ921/KTT455)
159.105 Highway/Police/Water
38.850 Fort Devens MPs (38.910)

BARNSTABLE
See Monitor America for Cape Cod.

BARRE
33.700 Mid-State Fire (KJW733)-5

BEDFORD
482.7125 Police (KAA999)
158.730 Old PD/Municipal (KCF442)
482.--- NEMLEC Police Net
154.340 Fire (KBT205)
33.660 No. Middlesex Net (KBT205)
153.935 Highway Department (KBI783)
453.875 Massport Authority (KON361)
163.4625 Hanscom Security
173.5875 Hanscom Fire

BELCHERTOWN
158.820 Police
460.225 WEMLEC Police Net (WBC449)
155.145 Fire (KCW396)
154.370 Amherst Fire Dispatch -52
155.145 Highway Department (KDG401)

BELLINGHAM
39.420 Police (KCE915)
33.540 Fire (KEP595)
37.940 Highway Department (KUS492)
155.220 Bellingham Ambulance (KYK489)

BELMONT
471.4125 Police (KAN840)
470.--- BAPERN Police Net
154.130 Fire (KCD849)
483.3125 Metrofire (KCD849)
156.195 Highway Department
153.620 Town Power (KCG543)
155.805 Municipal Services (KSJ346)

BERKLEY
483.0625 Police (KZM467)
482.5125 Bristol County Net (WEC762)
46.180 Fire/County Net (KFZ756)
151.130 Highway Department (KNFN756)

BERLIN
37.100 Police (KNFW788)
39.380 So. Middlesex Police (KNFW788)
33.700 Fire/Mid-State Net (KCB778)-6
453.375 Highway Department (KEM417)

BERNARDSTON
39.160 Police (KZI529)
39.240 Mobile/Base State PD
33.540 Fire/Tri-State Net (WRX664)
33.480 Fire/Mutual Aid (WRX664)

BEVERLY
471.3375 Police
45.480 Fire (KCG966)
154.070 Essex County Fire (KAY259)
150.995 Highway Deparment (KCF953)
153.980 Civil Defense (WXP310)
153.875 North Shore C.D. (KNBV916)
155.205 Public Schools (KKD372)
155.295 O'Brien Ambulance

BILLERICA
482.6625 Police (KEC445)
155.130 (Backup/C.D.) (KCB490)
482.--- NEMLEC Police Net (KEC450)
33.660 Fire (KCF312)
154.995 Municipal (KJV270/WZM911)
462.575 Civil Defense (KAC3814)
47.540 Public Schools (KNFU627)
45.940 County Jail (KNAF249)
483.8125 Valley Ambulance (WIG284)

BLACKSTONE
155.790 Police (KCI228)
33.620 Fire/So. Worc. Net (WQY368)-45
33.540 Fire (WQY368)
159.120 Highway Department (KNGJ601)

BLANDFORD
453.575 Police/Fire/Highway (KDW495)
33.460 Area Town Fire tie (KTZ395)
33.540 Hampden County Fire (KTZ395)
47.500 North East Rescue (KUN362)

BOLTON
37.100 Police (KBC209)
39.380 S. Middlesex Police (KNA2329)
33.700 Fire/Mid-State Net (KBA887)-7

BOSTON
See Boston section in Monitor America
460.0125 Mass. State Police (1 mobile)
33.100 Highway Department
453.100 State House Maintenace
462.750 School Committee
155.925 Marine Industrial Park
462.600, 464.900 Boston Community Amb.
464.475 Beth Israel Hospital Security
483.8625 Mass. Bay Paramedical

155.295 Mass. State Lab
155.205 New England Baptist Security
453.075 St. Margaret's Hosp. Security
155.265 Hahnemann Hospital Security
153.860 Massport (Grounds/Transit)

BOXBORO
154.725 Police (KMK588)
153.815 Police Ch.2/Amb. (KYK414)
155.010 Concord Area Police tie
46.500 Fire (KNFP294)
46.580 Highway Department (KYK414)

BOXFORD
45.140 Police (KJD278)
153.845 Fire (KJD277)
154.070 Essex County Fire (KCH315)
45.080 Municipal Services (KJU382)
155.265 Boxford Ambulance (KVV605)

BOYLSTON
45.620 Police (KEV420)
37.100 Clinton Area PD tie (KEV420)
33.700 Fire/Mid-State Net (KCF337)-8
48.380 Town Power (KCG321)

BRAINTREE
471.5375 Police (KSS950)
470.--- BAPERN Police Net
46.140 Fire (WQU446)
154.295 Southeast Fire Net (WQU446)
483.3125 Metrofire (WQU446)
158.850 Highway (KAW390/KTR540)
47.760 Town Power (WZQ742)
37.600 Utility Emergency (KNDU435)

BRIDGEWATER
482.6125 Police (KAB237)
482.--- Plymouth County Net
33.720 Fire (KCB281)
33.980 Taunton Fire tie (KCB281)
33.900 Plymouth County Fire (KCB281)
154.295 Southeast Fire Net (KCB281)
37.180 Highway Department (KFR604)
153.905 Bridgewater State (KSS983)

BRIMFIELD
154.115 Police/Fire
33.520 Fire/Hampden County (KCF790)
33.460 Fire/Hampden County (KCF790)
159.045 Highway Department (KUV641)
31.340, 31.380 State Park (KCC383)

BROCKTON
482.7125 Police (KAB240) "B"
482.8625 Police Channel #2 (KAB240)
482.--- Plymouth County Net
154.310 Fire (KNBH632)
33.420 Fire Portables (KNBH632)
154.295 Southeast Fire Net (KNBH632)
453.325 Water Department (KRL401)
453.575 Housing Authority (WXY577)
155.925 B.A.T. Area Transit (WRE287)
472.5375 B.A.T. Area Transit
155.835 Civil Defense
453.125 Goddard Medical Assoc.

BROOKFIELD
155.310 Police (KYK309)
33.620 Fire/S. Worc. Cty. (KNEN321)-14
45.520 Municipal Services

BROOKLINE
471.0125 Police (KUJ724)
483.4625 Fire (WIE734)
483.3125 Metrofire (KCF364)
151.055 Highway Department (KCH687)
155.385, 155.220 Metro Medical Amb.
45.960 Stavis Ambulance (KLG584)

BURLINGTON
482.4875 Police (KYL886/KYL900)
482.--- NEMLEC Police Net (WIE530)
154.340 Fire (KAX310)
33.600 No. Middlesex Fire (KAX310)
159.135 Highway Department (KBA744)
155.085 Municipal Services (KLM599)
154.600 School Department
153.875 Civil Defense
453.075 Leahy Clinic (WQN899)

CAMBRIDGE
470.3125 Police (WIE468)
471.3125 Police Channel #2 (WIE468)
471.5625 Middlesex County D.A.
158.730 Middlesex County Police
471.8125 Harvard Med School Police
470.--- BAPERN Police Net
154.355 Fire (KNEQ454)
33.940 Fire Training/Aux. (KNEQ454)
483.3125 Metrofire
159.135 Highway Department (KNEK313)
155.085 Traffic Department (KNEG753)
47.660 Red Cross (KNAK499)/ 47.42
462.900 Mt. Auburn Hospital (KIW912)

CANTON
470.4625 Police (KZN838)
470.--- BAPERN Police Net
33.500 Fire (WSZ316)
154.295 Southeast Fire Net (WSZ316)
453.875 Highway Department (KSQ423)

CARLISLE
154.830 Police (WQL891)
155.010 Concord Area PD tie
33.660 No. Middlesex Fire (KCF311)
156.105 Highway Department (KUL804)

CARVER
482.6625 Police (KZV262) "D1"
482.--- Plymouth County Net
39.160, 39.20 (Old PD-KCY578)
33.440 Fire (KCA601)
33.900 Plymouty County Fire (KCA661)

CHARLEMONT
39.160 Police (KZT531)
39.240 Mobiles/Base-State PD
33.540 Fire/Tri-State Net (KWE619)

CHARLTON
155.070 Police (KCB296)
33.620 Fire/So. Worc. Net (KCD975)-24
156.150 Highway Department (KXR815)

CHELMSFORD
482.5125 Police (KEF703)
155.700 Police Backup/Aux. (KAA370)
482.--- NEMLEC Police Net (KEF706)
33.660 Fire/N. Middlesex Net (KCF310)
155.835 Water Department (KNFM345)
45.520 Highway Department (KYJ327)

CHELSEA
470.8875 Police (KZR406)
470.--- BAPERN Police Net (KNDL997)
154.325 Fire (KDD985)
153.830 Fire -low power radios
483.3125 Metrofire (KDD985)
155.745 Highway Department (KLE837)
155.175 Chelsea Ambulance (KMA482)

CHESHIRE
154.740 Berkshire County PD (KX4859)
154.415 Fire (KNBU762)
154.310 Berkshire Cnty. Fire (KNBU762)

CHESTER
39.500 Police (KYU933)
33.520 Fire/Mutual Aid (KCH549)
33.460 Fire/Mutual Aid (KCH549)

CHESTERFIELD
154.115 Municipal Services (KNA226)
154.370 Fire/Hampshire Cty. (KCH620)-53

CHICOPEE
155.490 Police (KCA996)
460.225 WEMLEC Police Net (WBC450)
154.160 Fire (KDQ358)
451.700 Fire link to Blandford
154.995 Highway Department (KNHE476)
37.660 City Power (KCA936)

CLARKSBURG
155.055 Police (WQF451)
154.310 Fire/Berkshire Cnty. (KJU245)
155.055 Municipal Services (WQF451)

CLINTON
37.100 Police (KNEN299)
154.310 Fire (KCH246)
33.700 Mid-State Fire Net (KCH246)-9
46.580 Highway Department (KNFW450)

COHASSET
482.9875 Police "R4"
482.--- Plymouth County Net
154.190 Fire (KNFW294)
154.295 Southeast Fire Net (KNFW294)
153.875 Municipal Services (WQG897)

COLRAIN
39.160 Police (KNCG512)
39.240 Mobiles/Base-State PD
33.540 Fire/Tri-State Net (KCE879)
33.480 Fire/Tri-State Net (KCE879)
151.025 Highway Department (KNDJ506)

CONCORD
155.010 Police (KCA685)
39.380 So. Middlesex PD Net (KCA685)
46.500 Fire -channel one- (KNBP838)
46.400 Fire -channel two- (KNBP838)
33.980 So.Middlesex Fire (KNBP838)
33.660 No. Middlesex Fire (KNBP838)
155.100 Municipal Services (KBS973)
482.4375 Regional Schools (KNO928-9)
45.460 House of Corrections (KIB352)
453.650, 453.750 House of Corrections

CONWAY
39.160 Police (KZU980)
39.240 Mobiles/Base-State PD
33.480 Fire/Tri-State Net (KMA859)
33.540 Fire/Tri-State Net (KMA859)
159.120 Highway Department

CUMMINGTON
154.845 Police (WQA819,20/KOL998)
145.995 Old Police Channel
154.370 Fire/Hampshire Cty. (WXT896)-54
156.060 Highway Department (WQS453)

DALTON
154.875 Police (KXQ866, WXY538-fire)
154.740 Berkshire County Police
153.815 Fire (KDO270)
154.310 Fire/Berkshire County (KCD784)
45.800 Highway Department (KEV474)
153.815 Municipal Services (KDO270)

DANVERS
472.3125 Police (KED938)
155.880 Old PD Channel (KUN453)
470.--- BAPERN Police Net
46.120 Fire (KCI243)
46.320 Fire (KCI243)
154.070 Essex County Fire Net (KDN607)
483.3375 Future Fire Operations
45.640 Highway Department (KAZ872)
47.800 Water/Electric Dept. (KCI244)
158.850 (Municipal Services -KCA950)
155.715 Hunt Hospital Security

DARTMOUTH
155.250 Police (KCA937)
46.180 Fire/Bristol County (KCC452)
46.180 Fire (KTV678/KCC952/KNFF850)
155.025 Highway Department (KFZ749)

DEDHAM
470.9625 Police (KZN841)
470.--- BAPERN Police Net
470.9625 Norfolk County Sheriff (WZX423)
153.950 Fire (KCH551)
483.3125 Metrofire (KCH551)

DEERFIELD
39.160 Police (KZU981)
39.240 Mobiles/Base-State PD
33.540 Fire/Tri-State Net (KNEU520)
33.480 Fire/Tri-State Net (KNEU520)
156.225 Highway Department (KNDT811)

DIGHTON
482.3375 Police
482.5125 Bristol County Police Net
46.180 Fire/Bristol Cnty. (KNDV337-9)
45.280 Water District (KNCJ918)

DOUGLAS
39.980 Police (KCB775)
33.620 Fire/S. Worc. Cnty. (KAY985)-42
33.620 Fire Tower (KGW963)
37.920 Highway Department (KXG854)

DOVER
155.310 Police (KCG758)
33.500 Fire (KCA303)
150.995 Highway Department (KCF978)
45.960 School Department (KIL305)

DRACUT
482.4625 Police (KYR953)
155.415 Backup PD/Auxiliary (KTC808)
482.--- NEMLEC Police Net (WBF972)
154.400 Fire (KCB745)
33.660 No. Middlesex Net (KCB745)
155.055 Highway Department (KFT496)

DUDLEY
155.430 Police (KCC416)
33.620 Fire/S. Worc. Cnty. (KCH427)-23
159.105 Highway Department (KTQ237)

DUNSTABLE
155.580 Police
155.475 Police Channel Two
39.420 Area Police tie (KC3438)
33.660 Fire/N. Middlesex Net (KJS918)

DUXBURY
482.4625 Police (KZU624) "01"
482.--- Plymouth County Net
33.480 Fire (KCA351/KJZ993)
33.920 Marshfield Fire tie (same)
33.900 Plymouth County Fire (same)
154.295 Southeast Fire Net (KCA351)
155.775 Municipal Services (KBNW697)
47.540 Duxbury Beach Park

EAST BRIDGEWATER
482.6135 Police (KZV264) "J1"
482.--- Plymouth County Net
33.720 Fire (KCC350)
33.900 Plymouth County Fire (KCC350)
154.295 Southeast Fire Net (KCC350)
153.980 Highway Department (KBW838)

EAST BROOKFIELD
45.820 Police (KYO334)
33.620 Fire/S. Worc. Cnty. (KCF803)-13

EAST LONGMEADOW
155.550 Police (KVP496)
460.225 WEMLEC Police Net (WBC442)
155.760 Fire/Municipal Svcs. (KCH462)
33.520 Hampden County Fire (KUB896)
159.105 Highway Department

EASTHAMPTON
460.025 Police (KCB230)
460.125 Tactical Simplex Ops. (KCB230)
460.225 WEMLEC Police Net (WBC451)
154.370 Fire/Hampshire Cty. (KCH431)-55
158.760 Highway Department (KQY712)
153.875 Council on Aging (KNGR879)

EASTON
155.685 Police (KCF692)
155.730 Police Channel Two (KLY920)
33.580 Fire (KCA627)
33.500 Area Fire tie (KCA627)
453.925 Highway Department (KNBF359)
155.205 Public Schools (KFU597)
153.925, 158.925 Municipal Service
30.84/35.02/33.14/33.40 Reg. Schools

EGREMONT
154.740 Berkshire County Police
154.310 Berkshire County Fire

ERVING
39.160 Police (KNDR814)
39.240 Mobiles/Base-State PD)
33.540 Fire/Tri-State Net (KCE564)
33.480 Fire/Tri-State Net (KCE564)
39.180 Highway Department

ESSEX
158.820 Police/Fire/Municipal (KCI370)
154.070 Essex County Fire (KZI325)

EVERETT
470.8125 Police (KZR400)
470.--- BAPERN Police Net
154.310 Fire (KCH424)
483.3125 Metrofire (KCH424)
155.805 Municipal Services (KLY958)
153.875 Area Civil Defense

FAIRHAVEN
482.8125 Police (KZM463)
482.5125 Bristol County Net
46.180 Fire/Bristol Cnty. Net (KCB836)

FALL RIVER
482.3625 Police (KWJ364)
482.6875 Police Ch.2/Detectives (KWJ364)
482.5125 Bristol County Network (KWJ364)
33.820 Fire (KCB275)
46.180 Bristol County Fire (KNFF610)
462.950 Fire Rescue
482.4375 Housing/Schools (KNO479)
155.775 Municipal Services (KMA465)
47.840 Water Department
37.100 Wastewater Plant (KNAY949)
450.450, 450.850 WSAR Radio
153.740 Fall River Gas Co.
451.075, 451.175 EAU Service
464.325 Charlton Hospital Security
461.200, 482.4375 School Sec./Maint.

FITCHBURG
453.425 Police (KNAF257)
154.250 Fire (KNJX299)
154.175 Fireground Operations (KNJX299)
45.600 Highway Department (KBS469)
153.740 School Department (KKO864)
155.115 Civil Defense (KZR466)
155.745 Civil Defense
453.800 Montachusett Transit (KNBY247)

FLORIDA
154.710 Police (KNAK487)
154.310 Fire/Berkshire County (KNCW959)
151.130 Highway Department (WRB839)

SEND PUBLIC SAFETY AND SPECIAL EMERGENCY FREQUENCIES, RADIO SYSTEM DETAILS AND QUESTIONS FOR ALASKA, ARIZONA, COLORADO, HAWAII, IDAHO, MONTANA, NEVADA, NEW MEXICO, OREGON, UTAH, WASHINGTON AND WYOMING TO:

GEORGE N. HOGGATT, 17473 E. 16TH DR., AURORA, CO 80011
ELECTRONIC MAIL:
<COMPUSERVE:75376,673> <DELPHI:JORG> <SOURCEMAIL:BBZ812> <MCIMAIL:GHOGGATT>

I hope everyone survived the holidays with bank accounts somewhat intact. Not much new in the Denver area. Denver Fire is talking about "collapsing" (dropping) more fire units. Which ones seems to depend on who you listen to. I've heard pumper 3, truck 3, pumper 10 and pumper 11. I think that the city may be putting the rumors out to test public reaction and will make a decision based on who hollers the least. I'll keep you informed.

IDAHO

IDAHO STATEWIDE EMERGENCY MEDICAL SERVICE COMMUNICATIONS CENTER
Casey Crookham

F-1 155.340 F-2 155.280

The State EMS Comm Center is located at St. Alphonsus Regional Medical Center in Boise and dispatches emergency crews in remote areas and backs up other ambulance dispatchers. Many small communities rely on the comm Center to dispatch Quick Response Units made up of local volunteers and provide access to information from any hospital or rescue units in the state. Below is a list of the Comm Center's microwave linked remote transmitters. Refer to the maps in this column May 1984.

NAME	CALL
Schweiter	KXF665
Mica Peak	KXC812
Culdesac	KNAR917
Moscow Mtn.	KZR569
Lewiston Grade	KXT520
Castle Butte	KZR570
Cottonwood Butte	KWQ664
Cold Springs	KWO629
Snowbank	KWO631
Shaffer Butte	KFQ979
Bennett Mtn.	KEC892
Ketchum Baldy	KXX535
Flattop Butte	KXI895
Albion Butte	KKV417
Sedgwick Peak	KZV349
Chinks Peak	WQY589
East Butte	KXH275
Relay Ridge	KXD269
Grouse Peak	KWO537
Salmon Baldy	KXD309

WHITNEY FIRE PROTECTION DISTRICT Casey Crookham

Motorola MCX100 radios

RADIO NUMBER	WHITNEY NUMBER	EQUIPMENT
101	1	Ford engine

102	2	Pierce engine
103	3	Pierce
154	4	Dodge utility pickup
145	5	GMC brush truck
126	6	White tanker
107	7	
148	8	
149	9	Pontiac Catalina
160	10	Ford Fairmont

CHANNEL PLAN

RADIO CHAN	AGENCY	DESIGNATOR	FREQUENCY
1	North County Fire	RED	154.250
2	South County Fire	YELLOW	154.400
3	Boise Fire Ch. 2 primary	ORANGE	154.430
4	EMS	BLUE	155.265
5	Boise Ch. 3 (pending)	GREY	154.160
6	Boise Fire Ch. 1	BRONZE	154.370
7	County Mutual Aid (Whitney only)	PINK	154.265

BOISE POLICE Casey Crookham

Boise Police are replacing old four channel GE trunk mount radios with the new GE Phoenix synthesized, wide band, dash mount models. This flexability will allow BPD to use the 460 mhz emergency and mutual aid frequencies established in the Treasure Valley in addition to their own frequencies in the 453 mhz range. The Phoenix also features scan and priority functions.

BOISE POLICE G.E. PHOENIX CHANNEL PLAN

CHANNEL	FREQUENCY	USE
1	453.300	Ch. A
2	453.350	Ch. B
3	453.425	Ch. C
4	453.475	Ch. D
5	460.025	Regional All Call
6	460.450	Ada County dispatch
7	460.225	Ada County administration
8	465.275	car to car simplex

IDAHO MISC Mark Johnson ID–012

Idaho Fish and Game:Jerome	151.385(input) 159.330(output)
car to car	159.315
City of Jerome	154.040
Twin Falls County	154.055 (Station is listed for the county but IDs as "Station KOM893, Magic Valley Hospital" and is apparently used for paging)
Ketchum Fire Department	154.415 (output)
Elko County Sheriff, NV	155.055
Twin Falls Parks and Water	155.925 (numerous city units––water, building inspectors, etc.)
Camas County Road and Bridge	159.165 (also used by the Camas County District #121 buses for coordination with snowplows)
Elmore County Highway Dept.?	159.135

WASHINGTON

MISC. Steve Osterday WA–055

<This should have appeared a couple of months ago. My apologies to Steve.>

In response to the question on King County Washington on page 58 of the September 1984 issue – S.E. 460.450 is indeed still simulcasting on 460.525 as monitored.

Additionally, the frequencies 460.550, 453.350, and 155.190 are Mutual Aid Radio System (MARS) and are also refered to as TAC–2 on the King County Department of Public Safety. They are all simulcast.

King County North (460.325) is dispatching for the new Police Department of the City of Duvall. 565 is the Chief, 566 is the other full time officer. 567 and 568 are two part time officers.

The city of Issaquah 154.785 dispatch and patrol, also dispatches for the towns of Snoqualmie (500 series) and Carnation (400 series). Snoqualmie also has K-9 24. Issaquah is the 100 series. Carnation has 155.190 as F-2.

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Jack Waterman, 466 Kings Way, Mundelein, IL 60060

HI! Welcome to Public Safety/Great Lakes for February, 1985. I hope January didn't bring too much snow shoveling or "car-stucking" for you. It's appropriate that this column be written for the shortest month, as I've received word from CAROL that my recent efforts have been too long. So you'll have to substitute valentines for column pages for your reading quota this month.

Actually, all future PS/GL columns may be shorter, as mail has fallen off dramatically! Maybe it's just the Christmas season, which understandably takes everyone's first priority, but you're not writing as often as you used to. It may take a surprising length of time for your contributions to get into print, but they do get in here... This month we'll have the balance of SCOTT's [IL-198] article on Illinois Department of Corrections, a contribution from JOHN [IL-012], LARRY's [MI-001] list of Michigan Road Commission freq's, and a great update on Indiana State Police from DAVE [IN-002]. I can't meet CAROL's request for a shorter column if I keep up the personal chatter, so on with the data.

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ILLINOIS DEPARTMENT OF CORRECTIONS, CONTINUED As promised last month, here is a complete run-down on use of the Illinois State "community repeater system' by IDoC. This is a continuation of the contribution by SCOTT [IL-198]. Remember that, in this UHF band, repeater inputs are always 5.00 mHz above repeater outputs. So when you read a freq followed by 'R', that is the repeater output freq, with an input 5.00 mHz higher; an 'S' indicates a simplex frequency. Also note that there are tones required for repeater access on this system; I'm omitting them for the reason discussed in the January column.

Facility	F-1	F-2	F-3	F-4
	DoC ADULT INSTITUTIONS			
CENTRALIA	453.875R	453.875S	453.650S	453.650*
DIXON	453.875R	453.875S		
DWIGHT	453.875R	453.875S	453.600S	453.725*
GRAHAM	453.875R	453.875S	453.100S	453.100*
JACKSONVILLE	453.875R	453.875S		
JOLIET	453.875R	453.875S	**	453.625*
LINCOLN	453.875R	453.875S		
LOGAN	453.875R	453.875S	453.350S	453.350*
MENARD	453.875R	453.875S	453.350S	453.350*
MENARD PSYCH	453.875R	453.875S		453.350*
EAST MOLINE	453.875R	453.875S	453.600S	453.900*
PONTIAC	453.875R	453.875S	453.350S	453.500*
SHERIDAN	453.875R	453.875S	453.650S	453.975*
STATEVILLE	453.875R	453.875S	***	
VANDALIA	453.875R	453.875S		
VIENNA I	453.875R	453.875S	453.325S	453.325*
VIENNA II	453.875R	453.875S	453.775S	453.775*

DoC (IYC) YOUTH INSTITUTIONS

HANNA CITY	453.875R	453.875S		
JOLIET	453.875R	453.875S		
KANKAKEE	453.875R	453.875S		
PERE MARQUETTE	453.875R	453.875S		
ST. CHARLES	453.875R	453.875S	453.025S	
VALLEYVIEW	453.875R	453.875S		
WARRENVILLE	453.875R	453.875S		

DoC WORK CAMPS

DIXON SPRINGS	453.875R	453.875S		
LOGAN	453.875R	453.875S	453.350S	453.350*
TRAINING ACADEMY	453.875R	453.875S	453.275S	453.275*
VANDALIA	453.875R	453.875S	453.350S	453.350*
VIENNA	453.875R	453.875S	453.325S	453.325*

COMMUNITY CORRECTIONAL CENTERS

FOX VALLEY	453.875R	453.875S
JESSIE "MA"	453.875R	453.875S
METRO	453.875R	453.875S
DECATUR	453.875R	453.875S
E. ST. LOUIS	453.875R	453.875S
JOLIET	453.875R	453.875S
PEORIA	453.875R	453.875S
SOUTHERN ILLINOIS	453.875R	453.875S
URBANA	453.875R	453.875S
WINNEBAGO	453.875R	453.875S

* = simplex, no tone
** = multiple freq's: 453.625R, 453.900S
*** = multiple freq's: 453.025S, 453.350S

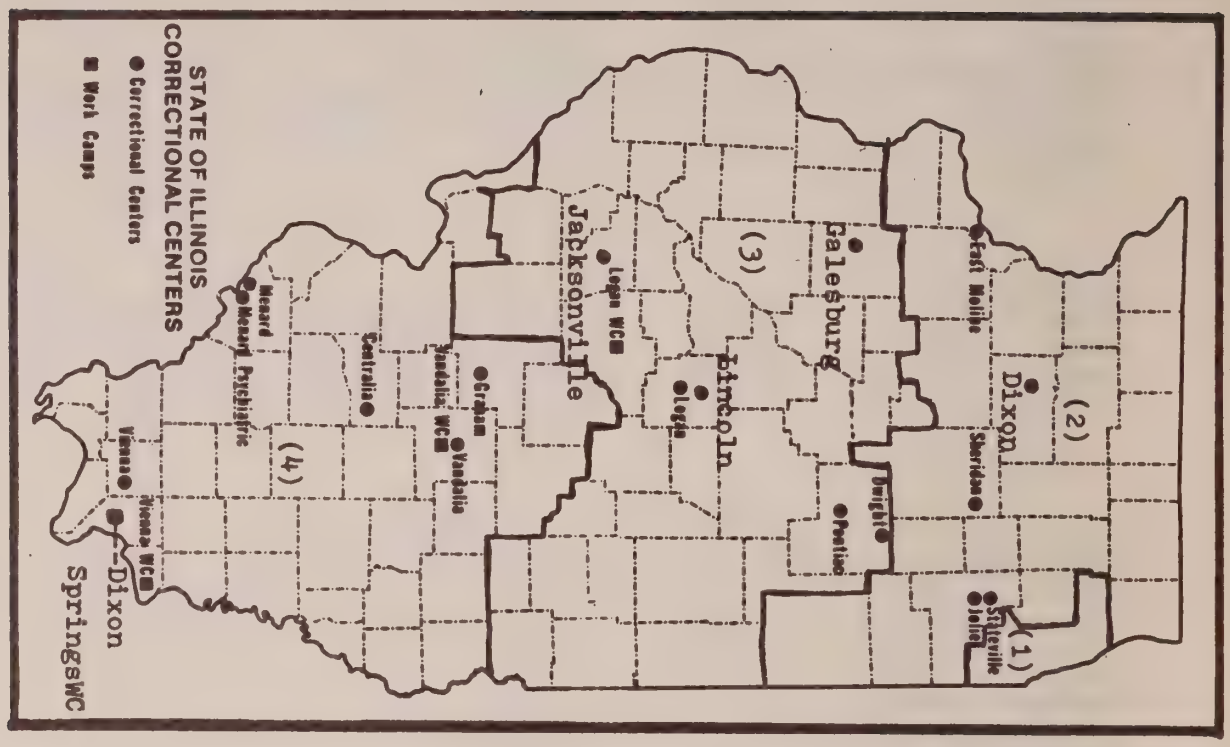
Somewhere nearby, depending upon where CAROL could fit them, are the maps I promised showing locations for Illinois Youth Centers, Juvenile Field Services Offices, Correctional Centers, and Work Camps. Thanks, SCOTT, for a really comprehensive overview.

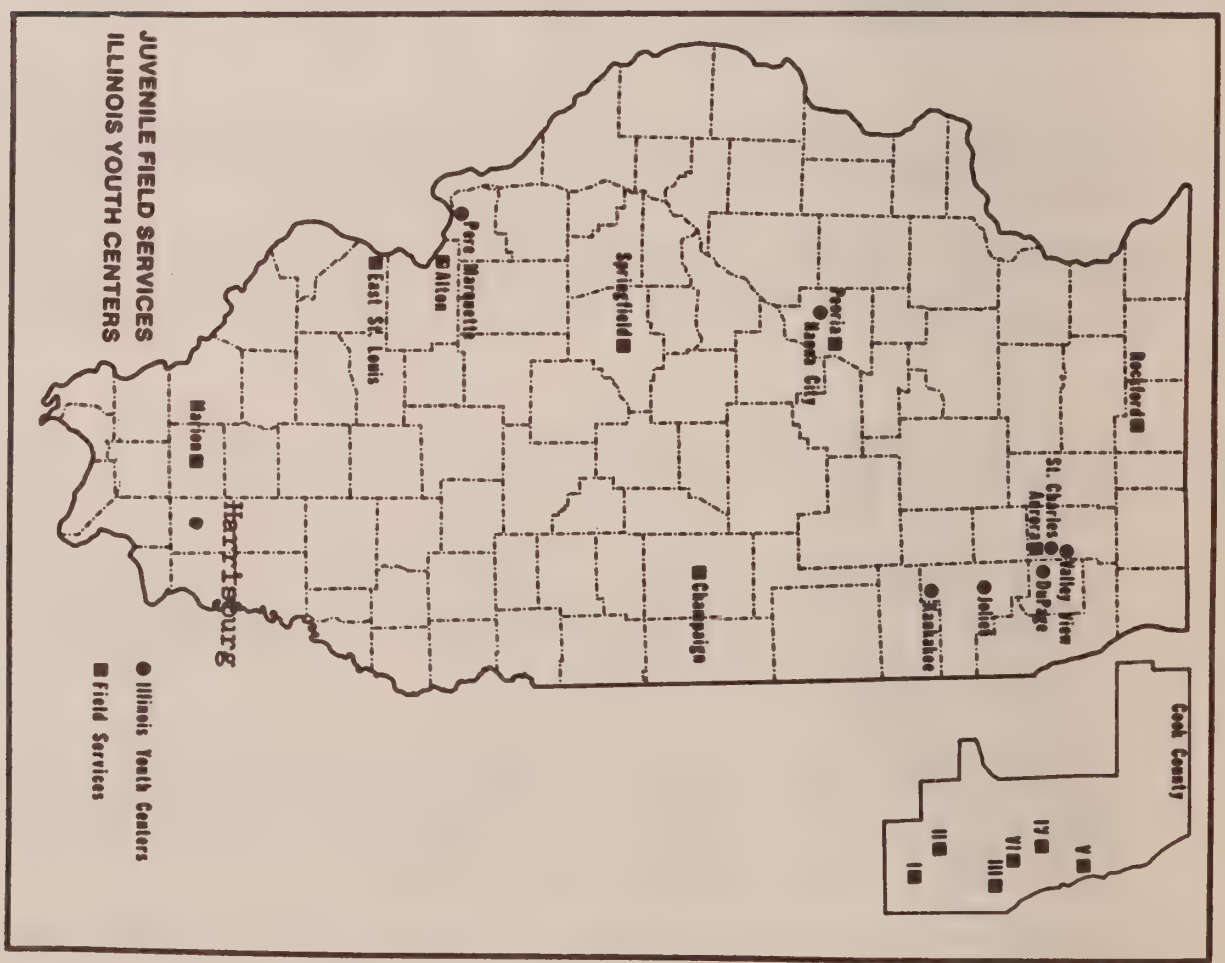
ISU AND NORMAL PUBLIC SAFETY FREQUENCIES SCOTT also sent frequency lists for Normal, IL Public Safety (police and fire) and Illinois State University, ISU PD post numbers, and radio codes for Matteson, IL. If you would like a copy of any of these, send me a SASE.

--

ILLINOIS DEPT OF NUCLEAR SAFETY I received one of many regular letters from JOHN [IL-012], around the middle of October. He passed on to me, and thru me to you, the following monitoring report:

> I monitored what appeared to be a field exercise that was conducted by the ILLINOIS DEPT OF NUCLEAR SAFETY during the evening hours of October 10. The frequency used was 44.92 mHz. Air samples and dosimeter readings were being taken in areas around the nuclear power plants in Grundy and La Salle counties. The main transmitter appeared to be in the Morris area and it identifed as RAINBOW,.or occasionally as RAFT COMMAND.
>
> Five different Radiological Field Teams were in service: ORANGE, BROWN, RED, BLUE, and GREEN. They consisted of DNS personnel; units mentioned were NS-1, NS-5, NS-8, NS-20, etc. Coded maps with sectors were in use: E-11, F-16, etc. Times were given in a coded form (T120, T135, etc) which corresponded to 0120 and 0135 hours Zulu (GMT) the "next day." One who was not aware of the freq use would swear that he was listening to a military exercise.
>
> I thought that the transmit sites around the Morris area were remoted from Springfield - similar to the ESDA arrangement on 45.44 mHz.


STATE OF ILLINOIS
CORRECTIONAL CENTERS
Correctional Centers
Work Camps
(1)
(2)
(3)
(4)
Dixon
Galesburg
Jacksonville
Lincoln
Dixon
SpringsWC
Sheridan
East Moline
Joliet
Pontiac
Dwight
Logan WC
Logan
Graham
Vandalia
Vandalia WC
Centralia
Menard
Menard Psychiatric
Vienna
Vienna WC


JUVENILE FIELD SERVICES
ILLINOIS YOUTH CENTERS
Illinois Youth Centers
Field Services
Cook County
Rockford
Peoria
Kewanee
Joliet
Dupage
Valley View
St. Charles
Champaign
Springfield
Pere Marquette
Alton
East St. Louis
Harrisburg
Marion

Thanks, JOHN, for another personally researched contribution. Readers note that JOHN has published the fourth supplement to his by-now famous work "Monitoring the I.D.L.E." If you would like a copy, send JOHN a SASE and a dollar or so for photocopying. If you can't locate JOHN's address in back issues of the Newsletter, send the SASE to me, and I'll pass it along to JOHN.

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INDIANA STATE POLICE I received letters from "Indiana's senior RCMA member", DAVE [IN-002] during October and November. He sent me a map of the ISP District boundaries and Post numbers/locations, a rundown on current use of the ISP radio freq's, and some data on the state highway department radio system and the Public Service Indiana radio system. The map is where CAROL could fit it in; here's the lowdown on ISP radio:

Base Stations - Low Band Transmit Freq		
F-1	42.12	INACTIVE
F-2	42.16	Special details, aircraft, etc.
F-3	42.40	INACTIVE
F-4	42.42	Main dispatch channel, statewide
Mobile Units - Low Band Transmit Freq		
F-1	42.26	Mobile to Base
F-2	42.40	XMIT ONLY - RECEIVE 42.42
F-3	42.10	Car to-car, statewide
F-4	42.16	Special details, aircraft, etc.
Base Stations - High Band Transmit Freq		
F-1	155.370	Point to point
F-2	155.445	Vehicular repeaters
F-3	155.475	"ILEEN" - Indiana Law Enforcement Emergency Network
F-4		Vacant
Mobile Units - High Band Transmit Freq		
F-1	155.445	Vehicular repeaters
F-2	155.475	ILEEN

DAVE clarified the use of the 42.40M/42.42B pair for me: "All mobile communications to the posts are conducted on 42.26 with the posts replying on 42.42. The 42.40 transmit crystals in the mobile radios are never used. Their presence provides a redundant backup channel should the trooper be inoperable on 42.26. Remember, only the posts have receive capability for 42.40, not the cars. The posts can transmit on 42.40, but this is not done at this time."

Nothing from DAVE on 42.20 and 42.32, listed in Police Call and also discussed in earlier columns. Apparently they're not installed.

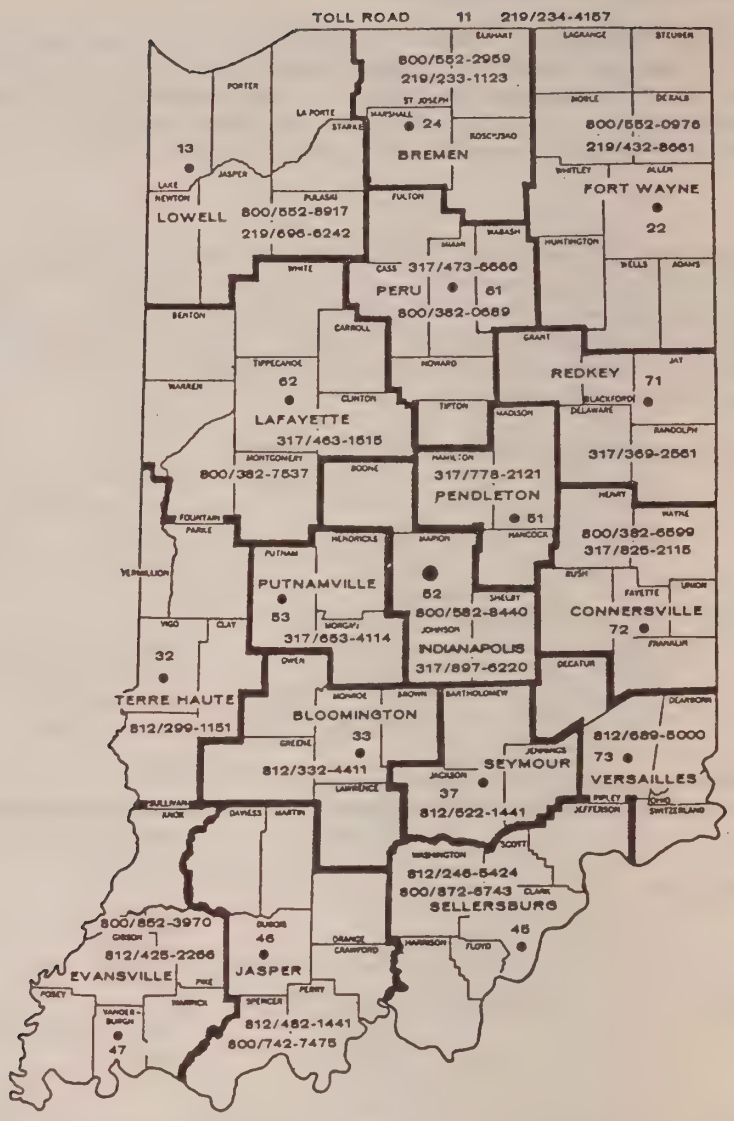
More from DAVE: Indiana Dept of Highways dispatches trucks and plows on 47.36
Intersystem and sub-district station communications on 47.28

Public Service Indiana is moving operations to 800 mHz, altho 48.46 is still being used for units in the southern and eastern divisions until all bases and mobile units can be equipped with 800 mHz gear. Eventually, most operations will be on 800 mHz and 48.46 will be used as a "chit-chat" and backup channel. All divisions should be operational on 800 mHz by early 1986.

PUBLIC SERVICE INDIANA RADIO SYSTEM

48.46	low band dispatch net and truck to truck
48.54	low band truck to base
851.2125	F-1
851.4125	F-2
851.4875	F-3
851.3625	F-4
851.4375	"North"
851.3125	"West"
851.3875	"South"

Thanks, DAVE, for your input to the columnI



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MICHIGAN COUNTY ROAD COMMISSIONS Once again, LARRY [MI-001] comes through with the data. As promised in last month's column, here's LARRY's personally researched list. If you live in or near Michigan, you might want to send LARRY a card or letter; he probably has more good info than anyone else you'll contact and, as you can see, he's always ready to share it with you. Thanks again, LARRY!

[*] = UPPER PENINSULA

LARRY A. SMITH
1223 VINSETTA BLVD
ROYAL OAK, MI 48067 [MI-001]

151.010.....ALCONA COUNTY
45.800.....ALGER COUNTY *
151.040.....ALLEGAN COUNTY
156.105.....ALPENA COUNTY
159.120.....ALPENA COUNTY
159.180.....ANTRIM COUNTY
151.040.....ARENAC COUNTY
151.055.....BARAGA COUNTY *
156.180.....BARRY COUNTY
150.995.....BAY COUNTY
156.240.....BENZIE COUNTY
33.020.....BERRIEN COUNTY
156.180.....BRANCH COUNTY
156.240.....CALHOUN COUNTY
151.055.....CASS COUNTY
156.120.....CASS COUNTY
159.165.....CHARLEVOIX COUNTY
151.040.....CHEBOYGAN COUNTY
159.195.....CHEBOYGAN COUNTY
156.135.....LAPEER COUNTY
453.650.....LENAWEE COUNTY
37.980.....LEELANAU COUNTY
156.240.....LIVINGSTON COUNTY
151.055.....LUCE COUNTY *
33.100.....MACKINAC COUNTY *
159.180.....MACOMB COUNTY
151.010.....MANISTEE COUNTY
159.180.....MANISTEE COUNTY
151.025.....MARQUETTE COUNTY *
156.120.....MASON COUNTY
151.100.....MECOSTA COUNTY
156.240.....MECOSTA COUNTY
159.180.....MENOMINEE COUNTY *
161.790.....MIDLAND COUNTY
156.225.....MISSAUKEE COUNTY
37.980.....MONROE COUNTY
150.995.....MONTCALM COUNTY
156.240.....MONTMORENCY COUNTY

33.060.....CHIPPEWA COUNTY *
151.025.....CLARE COUNTY
159.180.....CLINTON COUNTY
33.020.....DELTA COUNTY *
159.135.....DICKINSON COUNTY *
453.700.....EATON COUNTY
150.995.....EMMET COUNTY
156.180.....GENESEE COUNTY
159.870.....GLADWIN COUNTY
156.105.....GRATIOT COUNTY
156.135.....HOUGHTON COUNTY *
156.180.....HURON COUNTY
151.025.....INGHAM COUNTY
159.105.....IONIA COUNTY
156.240.....IOSCO COUNTY
37.980.....IRON COUNTY *
159.120.....KALAMAZOO COUNTY
151.010.....KENT COUNTY
156.135.....KENT COUNTY
151.010.....KEWEENAW COUNTY *
159.180.....KEWEENAW COUNTY *
150.995.....LAKE COUNTY
159.060.....MUSKEGON COUNTY
159.120.....NEWAYGO COUNTY
156.165.....OAKLAND COUNTY
156.225.....OAKLAND COUNTY
151.040.....OCEANA COUNTY
159.180.....OGEMAW COUNTY
151.040.....ONTONAGON COUNTY *
156.225.....ONTONAGON COUNTY *
159.165.....OSCEOLA COUNTY
156.120.....OTTAWA COUNTY
159.180.....OTTAWA COUNTY
156.165.....ROSCOMMON COUNTY
159.195.....ROSCOMMON COUNTY
151.025.....PRESQUE ISLE CTY.
151.025.....SAGINAW COUNTY
156.105.....ST. CLAIR COUNTY
159.180.....ST. JOSEPH COUNTY
37.980.....SANILAC COUNTY
156.135.....SCHOOLCRAFT CTY. *
159.195.....SCHOOLCRAFT CTY. *
159.120.....SHIWASSEE COUNTY
151.055.....TUSCOLA COUNTY
37.940.....WASHTENAW COUNTY
37.960.....WASHTENAW COUNTY
151.010.....WAYNE COUNTY
453.950.....WAYNE COUNTY
159.120.....WEXFORD COUNTY

COUNTIES NOT LISTED ARE UNKNOWN AT PRESENT TO HAVING A ROAD COMMISSION SERVICE. AGAIN, YOUR HELP PROVIDING INFO ON THESE WILL BE MOST WELCOMED.

CRAWFORD COUNTY - GOGEBIC COUNTY - GRAND TRAVERSE COUNTY - HILLSDALE COUNTY -

ISABELLA COUNTY - JACKSON COUNTY - KALKASKA COUNTY - OCSODA COUNTY -

OTSEGO COUNTY - VAN BUREN COUNTY !!! last minute addition from LARRY = 159.135 !!!!

--

Well, that's the column for February, faithful readers. I hope you've found something of interest or value. The mailbag still holds a few goodies such as more new freq assignments for Wisconsin from LARRY [WI-005], some great input from CARL [WI-054] & LARRY [WI-015] & SCOTT [WI-039] who attended the last RCMA Chicago Chapter meeting, DENNY's [IL-026] official Illinois State freqs list, an update on CFD's new 800 mHz Computer Aided Dispatch system from MIKE [IL-014], several items I mentioned last month, and several surveys submitted by regional readers. But there's always room for <u>your</u> contribution, too.

So when you've finished writing, and later reading, your many valentines [secret lover, don't forget mine!], check the antenna connections, turn up the volume, back off the squelch and

TRACK 'EM DOWN WRITE 'EM UP SEND 'EM IN

Best regards (watch for Cupid's arrows),

Jack

PUBLIC SAFETY — SOUTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas:

Ken Pehl, 108 E. Centre St., Fredericksburg, Texas 78624.

Welcome to the second column of the new year. By this point everyone should have gotten used to writing 1985 on their checks and other dated material. I only wish it didn't take me about 10 months to get used to the change (ha, ha). This column again is rather short on account of lack of time to prepare all the material properly. My work and other commitments are cutting my scheduled time for RCMA related concerns to a state of almost non-existance. My apologies to all the readers for any inconvenience this may cause.

I am still looking for a volunteer to undertake the task of writing a cross reference index to all the past columns. I know this is asking a lot, but if someone still has thoughts about trying all, or at least, some portion, it would be helpful and certainly appreciated by all readers. Perhaps several persons could help - each taking only a portion of all the back issues, like a 6 month segment.

From the collective efforts of the Houston Area Listeners Group: The April 84 column contained some details of changes in the Houston Fire Dept radio system. By the time this column is in print there is a strong possibility some further changes in HFD's radio system will already be in effect. Essentially, the changes involve a shift of all Houston Fire Dept radio channels from the present 460.xxx cluster of channels to the 453.xxx range. The present 460.xxx channels being used by the HFD will be released to the Houston Police Dept for their use. The new HFD channels will be on 453.425, 453.500, & 453.675. In addition, the HFD/EMS channels will shift from the present 460.xxx channels to the UHF MED dispatching channels--MED 9 and MED 10. Highlights of the changes are as follows:
--The present simulcasting on dual UHF channels (the 460 ch's with the 453 or 462 ch's) will cease (see the April 84 col.)
--HFD fire alarm/dispatch channel will probably be on only 453.425 (presently 460.575 & 453.425). Callsign is WRB 364. (Note: It is not known how the VHF ch 154.160, which was always simulcast with the UHF dispatch ch., will be affected by this change.)
--453.500 will possibly be the backup alarm channel, similar to the usage of present HFD Ch 9--460.625
--453.675 will possibly be the arson investigators dispatch channel.
--462.950 (MED 9) will be the primary dispatch channel for HFD's EMS. (presently being simulcast with HFD Ch 6--460.525)
--462.975 (MED 10) will continue to be Lifeflight's primary dispatching channel. HFD has taken over dispatching duty for Lifeflight. This channel will also serve as the HFD/EMS secondary/backup dispatching channel, as necessary.
--the channels 460.525 & 460.550 being vacated by HFD/EMS will revert over to the Houston Police Dept's use for new patrol districts, which will be created from district re-alignments and splitting up of larger districts.

Thanks so much, HAL6! We all appreciate that update very much.

From TERRY (TX-95): Terry has graciously provided a copy of the Austin Fire Dept radio unit roster that went into effect 11/1/84. Readers will note the article in the October column on the Austin (city) radio systems. The AFD roster therein is now obsolete! (Editor's note: That seems to be typical of my luck in running the columns. I finally get the latest info gathered together and in print, then it almost immediately becomes obsolete a week or so later. It must be some corollary to Murphy's Law!)

AUSTIN FIRE DEPT UNIT ROSTER

ADMINISTRATION

101 Fire Chief
102 Assist. Chief Pool
103 Assist. Chief Erickson
104 Assist. Admin. Petty
118 Bldg. Maint.
119 Bldg. Maint.

TRAINING

108 Division Chief
181 Assist. Chief
182 Lt. Instructor
183 Lt. Instructor
184 Lt. Instructor
185 4th Training Van
186 5th Training Van

PREVENTION

152 Inv. Capt.
153 Inv. Sec.
154 Code Compliance
155 Inv. Sec.
159 Lt. Photo
162 Capt. Insp.
163 Insp. Sec.
164 Insp. Sec.
165 Insp. Sec.
166 Insp. Sec.
167 Code Compliance Capt.

COMMUNICATIONS/PUBLIC INFORMATION

190 Communications Chief
192 Capt. Communications/PIO

OPERATIONS		SHOP		CRASH/FIRE/RESCUE	
107	Division Chief	177	Mechanic	C/F/R 1	Chief
171	Maintenance Chief	178	Mechanic	C/F/R 2	Quick Response
172	Lt. Streets and Hydrant	179	Mechanic	C/F/R 3	Crash Co.
173	Capt. Breathing Apparatus			C/F/R 4	Crash Co.
174	Breathing Apparatus				
175	Breathing Apparatus				

DISTRICT I	DISTRICT II	DISTRICT III	DISTRICT IV
Batt. 1 @ Sta. 4	Batt. 2 @ Sta. 8	Batt. 3 @ Sta. 5	Batt. 4 @ Sta. 6
Eng. 1 @ Sta. 1	Res. 8 @ Sta. 8	Res. 14 @ Sta. 14	Res. 17 @ Sta. 17
Eng. 2 @ Sta. 2	Eng. 8 @ Sta. 8	Eng. 5 @ Sta. 5	Eng. 6 @ Sta. 6
Eng. 3 @ Sta. 3	Eng. 21 @ Sta. 21	Eng. 7 @ Sta. 7	Eng. 11 @ Sta. 11
Eng. 4 @ Sta. 4	Eng. 23 @ Sta. 23	Eng. 14 @ Sta. 14	Eng. 17 @ Sta. 17
Eng. 10 @ Sta. 10	Eng. 25 @ Sta. 25	Eng. 15 @ Sta. 15	Eng. 20 @ Sta. 20
Eng. 30 @ Sta. 1	*Eng. 28 @ Sta. 28	Eng. 22 @ Sta. 22	Eng. 24 @ Sta. 24
Trk. 1 @ Sta. 1	Trk. 23 @ Sta. 23	Eng. 26 @ Sta. 26	*Eng. 27 @ Sta. 27
Trk. 3 @ Sta. 3	Trk. 25 @ Sta. 25	Trk. 15 @ Sta. 15	Trk. 6 @ Sta. 6
Boat 1 @ Sta. 1	Boat 21 @ Sta. 21	Boat 22 @ Sta. 22	Trk. 20 @ Sta. 20
		Boat 26 @ Sta. 26	

DISTRICT V

Batt. 5 @ Sta. 16	Eng. 18 @ Sta. 18
Eng. 9 @ Sta. 9	Eng. 19 @ Sta. 19
Eng. 12 @ Sta. 12	Trk. 18 @ Sta. 18
Eng. 16 @ Sta. 16	Trk. 19 @ Sta. 19

* Companies not in service yet.

From MIKE (TX-81): Mike sent some odds and ends some months ago, which for some reason or another got lost in the shuffle of this editor's efficient (!?) filing system. Mike reports--
--his local Highway Dept district active with hand held portables on 151.055--SHPT Ch L.
--Parks & Wildlife Dept personnel in his area sporting (Editor's note: pardon the pun) the new Motorola hand held radios. The radios operate a very wide transmitting bandwidth -- from the P&W's 151 MHz band to the mid-155 MHz band.
--the Paris Jr. College radio system consists of the channels 155.430, 154.650, and 154.800. The latter two are the repeater inputs to the Paris PD and the Paris Sheriff Dept repeaters, respectively. The licenses are under state license-ship, explaining why no listing for them exists otherwise.
--the city of Bonham local gov't channel is on 157.110. Mike says this is not a typo but a legitimate FCC authorized local govt allocation. Mike states this proves an important point -- we all need to make more sweeps of the entire spectrum, using the search features of our scanners, in order to find these "odd ball" allocations.
(Editor's note: This allocation is so unusual. I have not yet located the appropriate FCC regulation concerning these type of allocations, but knowing our FCC Topics editor, he will be forthcoming with the answer shortly. Mike is right -- how many more of these "odd balls" are "hidden" out there?)

Your reports, as always, are appreciated and my apologies for the delay, Mike!

From DAVID (LA-31): David sent some frequency info some months ago, which for some reason or another also got lost in the shuffle of this editor's efficient (!?) filing system.
The Washington Parish Correctional Institution uses the following frequencies -- 154.965, 154.960, & 155.965.

Thanks, David, and sorry for the delay! Your report is appreciated nonetheless, David! (Editor's note: It seemes to be about time that I cleaned up around here. My apologies once again.)

And with that so long for now. See you next month.

PUBLIC SAFETY — NORTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows - Iowa, Kansas, Missouri, Nebraska, N. Dakota, South Dakota, and Minnesota:

Rudy Brockmueller, RR 2, Box 50, Freeman, SD 57029

This has been a perfect fall for a South Dakota farmer. The weather has been warm and dry, with no real reason to leave the crop unharvested. Now that those things are behind us, it is time to do some serious monitoring!

Response to the Survey has been fantastic. The amount of contributions to the column have also greatly increased. That makes for a very interesting and informative newsletter.

This month we have covered two areas that people have wanted to hear more from, thanks to the two readers from Missouri and the anonymous contributor from Kansas. Next month expect to see an extensive listing for Minnesota. I also have some material for the Iowa area in the near future. Keep the info coming. Maybe I can add it to these columns.

MISSOURI -

This is a list of some 10-Codes used in the St. Louis Municipal Police Departments. This is followed by a list of 10-Codes used by the St. Louis County Police Department. Only those that vary from the 10-Codes at the beginning of the Public Safety section are listed. These, along with the Troop Area Map of the Missouri Highway Patrol, make a fine introduction to the detailed article on the Missouri Highway Patrol low band radio system.

Thanks to Leonard MO-080!

St. Louis Co. Municipal Police Depts.

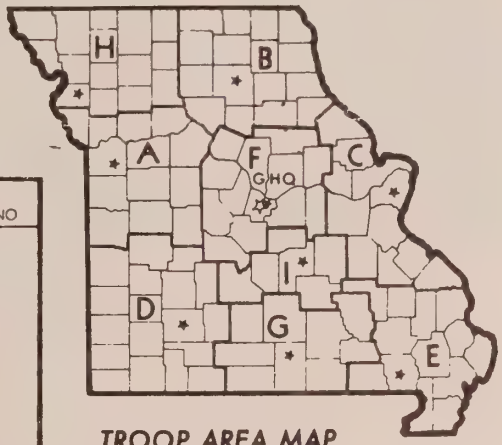
10-17 Vacation Check
10-40 Request for Swat Team
10-44 J1 Personal Relief
J2 Vehicle Service
J3 Vehicle Wash
J4 Lunch
J5 Early Change Car
10-50 Vehicle Accident
J1 Minor
J2 Injuries
J3 Road Blocked
J4 Fatal
10-80 Car to Car Traffic
10-81 Prisoner in Custody
10-86 Computers Down
10-92 Contract Patrol
J1 Beginning Patrol
J2 Ending Patrol
10-95 Bomb Threat

St. Louis County Police Dept.

10-10 Fight in Progress
10-11 Dog Case
10-12 Stand By, Remain Alert, Stop
10-14 Report of Prowler
10-15 Civil Disturbance
10-16 Domestic Trouble
10-17 Meet Complaintant
10-26 Detaining Subject, Expedite_____
10-31 Crime in Progress
10-32 Man With Gun
10-34 Riot
10-35 Major Crime Alert (replaces Code 100)
10-37 Investigate Suspicious Auto
10-38 Stopping Suspicious Auto (Five Station Description of Auto Before Stopping)
10-39 Urgent-Use Light & Siren
10-40 Silent Run-No Light & Siren
10-43 Information
J1 Confidential
10-44 Request Permission to Leave Patrol for _____
10-45 Animal Carcass At _____
10-46 Assist Motorist
10-47 Emergency Road Repairs Needed
10-48 Traffic Standard Needs Repairs
10-49 Traffic Light Out
10-53 Road Blocked
10-54 Livestock on Highway
10-58 Direct Traffic
10-59 Convoy or Escort

10-60 Squad in Vicinity
10-61 Personnel in Area
10-62 Reply to Message
10-63 Prepare to Make Written Copy
10-64 Message for Local Delivery
10-65 Net Message Assignment
10-66 Message Cancellation
10-67 Clear to Read Net Message
10-68 Dispatch Information
10-69 Message Received
10-75 In Contact With
10-76 En Route
J1 Prisoner
J2 Female
10-78 Need Assistance
10-79 Notify Coroner
10-80 Vacation Check
10-81 School Stops
10-83 Door Check
10-84 If Meeting_____, Advise
10-85 Will Be Late
10-86 Report to Station
10-87 Pick Up Checks for Distribution
10-89 Car to Car
10-90 Bank Alarm
10-91 Unnecessary Use of Radio
10-92 Frequency Check
10-93 Blockade
10-94 Drag Racing
10-95 Give Radio Test
10-96 Mental Subject
10-97 Minor Detail
J1 Station Report
J2 Station-Lunch
J3 Restaurant
10-98 Prison or Jail Break

TROOP	HEADQUARTERS	area code	TELEPHONE NO
GHQ	Jefferson City	(314)	751-3313
A	Lee's Summit	(816)	524-1407
B	Macon	(816)	385-2132
C	Kirkwood	(314)	434-5500
D	Springfield	(417)	869-1525
E	Poplar Bluff	(314)	785-5757
F	Jefferson City	(314)	636-5171
G	Willow Springs	(417)	469-3121
H	St. Joseph	(816)	233-0291
I	Rolla	(314)	364-1215



TROOP AREA MAP
MISSOURI HIGHWAY PATROL

MISSOURI STATE PATROL MAKES CHANGES IN LOW BAND RADIO SYSTEM

The Missouri State Highway Patrol, an agency of the Department of Public Safety, has made few changes in their basic low band radio system in the last 25 years. However, new changes are coming rather soon, and you'll hear about them first right here in your RCMA Newsletter.

The low band system is being expanded from a four channel mobile system to an eight channel mobile system. New Motorola "Syntor" 12-channel radios are being purchased. This is the radio with the dealer-programmable 'prom' that can be replaced for about $53.00 - a far cry from the $150.00 for a pair of crystal elements for a crystal controlled Micor unit. If you look inside a State Patrol mobile unit (hopefully not while they are writing you a citation), you'll see a whole bunch of radio equipment. The low band mobile unit has a black control head with channel selection at the bottom. On top of the control head is a black matching box that controls the scan unit. On here you will see a 'scan' button and four buttons marked 'NP1' through 'NP4'. If the trooper is assigned to channels 1 and 2 (F1 42.060 RX/42.22 TX; F2 42.060 TX/RX), he selects F1 to talk to headquarters and F2 for car to car. While in this mode, he selects 'NP1'. Now while he is not talking, his radio scans the preselected pair of F1 and F2. 'NP2' corresponds to F3 and F4, 'NP3' to F5 and F6, etc.

These new radios are in the process of being installed. Exact use of all pairs or possible reassignments are not yet known. Here is the new plan:

F1	42.220 TX / 42.060 RX	Dispatch
F2	42.060 TX / 42.060 RX	Car to Car
F3	42.320 TX / 42.120 RX	Dispatch
F4	42.120 TX / 42.120 RX	Car to Car
F5	42.320 TX / 42.380 RX	Dispatch
F6	42.380 TX / 42.380 RX	Car to Car
F7	42.220 TX / 42.060 RX	Dispatch
F8	42.060 TX / 42.220 RX	Car to Car
F9-F12 Blank		

Now it looks like F1/2 and F7/8 are the same. They are. The State will be using tone coded squelch (private line, channel guard, etc.) on the system. F1 to F6 will use one tone and F7 and F8 will use a different tone. It is not known why they have paired 42.320 with both 42.120 and 42.380. One would think that a new mobile channel would be procured, but one was not, at least not yet. The frequency 42.380 will cease use as a troop to troop channel, and while it will be used somewhere for dispatch, it is designed as a "State Government Emergency Frequency", and when a disaster strikes, troop headquarters that dispatch there will move somewhere else and 42.380 will become the emergency frequency.

From this, one can surmise that base transmissions will take place on 42.060, 42.120, and 42.380; and mobile response will occur on 42.220 and 42.320. So while this is an eight channel system, you only need five frequencies to hear it all.

Let your Public Safety-North Central editor know how this is implemented across the state.

More changes are being planned in the high band system which has evolved from the portables carried by the troopers. The frequency 154.920 is being installed in every troop headquarters. We're not sure what this will be used for, but if you hear anything, let your editor know!

We know of no plans for scrambling yet, fortunately.

Dr. M. DelFontaine, MO-092

KANSAS-

Wichita Area Frequencies

Wichita PD Channel	1	155.130
	2	155.430
	3	156.090
	4	154.725
	5	154.785
Wichita Fire Dept.	A	154.415
	B	154.190
Local Government		154.415
		158.760
		158.835
Metropolitan Ambulance		155.205
Turnpike		154.830
		158.910
		151.085
		151.100
		154.680
Sedgwick Co. Sheriff	1	155.190
	2	155.190
Civil Preparedness		155.025
Ambulance Channel	1	463.000
	2	463.025
	3	463.050
	4	463.075
	5	463.100
	6	463.125
	7	463.150
	8	464.175?
Statewide Hear		155.340
Cessna Security		158.430
		160.750
City & County Health		155.775
Agusta		45.20
		45.46
Butler County		39.24
		39.10
El Dorado		155.085

	3	154.875
	4	155.535
County Fire Dept.		154.385
Andover Police Dept.	in	153.750
	out	154.995
	Simplex	155.805

Kansas Highway Patrol

Channel 1	Tx 44.82 Rx	44.98
2	Tx 44.98 Rx	44.98
	Tx 45.18 Rx	44.94
	Tx 44.94 Rx	44.94
	Air	45.14

Goddard	155.805
Hesston	154.800
Hutchinson	155.250
Kingman County	39.28
Mulvain	39.38
Newton	154.845
	154.755
Reno County	39.94
Sumner County	39.72
Valley Center	154.100
Winfield	45.24
Misc. Hospital	155.385
V. A. Hospital	155.400
	155.470
Wesley	33.04
St. Francis	47.46
Halstead	155.400
Sedgwick C. Med. Soc.	155.235

Wichita 10-Codes

10-10	Out of Service, Subject to Call
10-11	Stay in Service
10-12	Officials or Visitors Present
10-14	Convoy or Escort
10-15	Prisoner in Custody
10-16	Pick Up Prisoner At _____
10-17	Nothing for You
10-18	Anything for Us
10-26	Holding Subject, Rush Reply
10-31	Emergency, All Units Stand By
10-32	Chase
10-34	Trouble at _____
10-35	Major Crime Roadblock
10-36	No Further Assistance Needed
10-37	No Rush
10-38	Urgent (Silent Run)
10-39	Emergency (Lights and Siren)
10-40	Fatality Report
10-41	Send Wrecker to _____
10-42	At Home
10-43	Meet _____ At _____
10-44	Investigate Vehicle
10-45	Investigate Occupied Vehicle
10-46	Drunk Driver
10-47	Auto Accident - Property Damage
10-48	Auto Accident - Personal Injury
10-49	Send Ambulance to _____
10-50	Send Ambulance Employee Involved
10-51	Officer Needs Supervisor
10-52	Officer Needs Traffic Investigator
10-53	Officer Needs Traffic Control At _____
10-54	Officer Needs Detective
10-55	Body Recovered
10-60	Tower Lights Out At _____
10-65	Clear for New Item
10-66	Clear for Cancellation
10-77	No Contact At All
10-80	Pick Up Your Partner
10-81	Call Your Spouse
10-83	Unit At Station
10-86	Advise Correct Time
10-87	Pistol Range
10-88	Medical Advisor Monitor Frequency
10-89	Terminate Medical Patch & Establish With Medical Advisor
10-98	Riot or Mass Disturbance At _____
10-99	Jail Break At _____

Patient Codes

White - Non Critical Patient
Red- Serious or Critical
Blue- In or Near Full Arrest
Green- Mental
Yellow- Expired

Signals

1- Armed and Dangerous
2- Resists Arrest
3- Mental
4- Suicidal
5- Need Officer To Take Report
6- Need Officer, Have Trouble
7- Need Officer, Urgent
10- Radio Gram Number
30- No Record
32- Wanted
31- Record
32X-Dangerous

Police & Fire Codes

1- No Smoke or Flames Visible
2- Smoke Only
3- Smoke and Flames
4- Fire Under Control
5- Noise in Building
6- Glass Breaking in Building
7- Hearing Noises
9- Switch to Scrambler
10-Switch to Info Channel
20-You Have No Relief
21-Make Mail Run
22-Armed Robbery in Progress
23-Turn Off Relay
24-Burglary in Progress
25-Hostage Situation
26-Bomb Threat
27-Swindle Alert

February 1985 PUBLIC SAFETY CALIFORNIA

From FRED (NM-005): Update in Mono County: 153.86 now being used for all fire dispatch south of Conway Summit or Mono City/Lee Vining South. This is due to full operation of 911 for county which is answered at Mono 1. All 911 calls now dispatched by Mono 1 for Sheriff's also. Mono 2 no longer handles emergencies for south county. 911 implementation began 10-1-84. Comments on the 12/84 column; Page 63 District 9 Caltrans has switched to 800 mhz - no 47 mhz traffic heard in over one year; Mono S. O. Page 67 SO 1 is 154.80 simplex and SO 2 is repeater access to 154.80. There are 6 repeaters accessed by a tone switch labeled A-F (F is All Call); Ch 3 for Mono S. O. is 155.16 - search and rescue; Page 67 Mono EMS - in three years of living and monitoring here I've never heard Medic 4 in Benton.

Lifeflight of Southern California now has a permanent helicopter at Chino Community Hospital. Others are at Long Beach and Mission Viejo. Lifeflight 2 was heard on 154.025 (Blue; fire dispatch Ontario). Other freqs. being sought.

For a prospective member, here are two active freqs for "Air to Air" and "Air to Ground" water drop helicopters for L.A. Co. Fire and L. A. City Fire: 118.925 and 118.95

Link freqs from the federal building in West L. A. to the weather service transmitter sites; 410.10 for Santa Barbara - 162.40 and 410.575 for Los Angeles 162.55.

Fox Scanner Radio Listings now publishes books for the Los Angeles area and the San Diego area. They include business, marine, utility, police, fire, federal, and aircraft. It has several cross references

by freq and callsign. Check it out at Communications Center in Anaheim at 915 N. Euclid or call 1-800-543-7892 for info.

From ART (CA-KE-014): Ridgecrest P. D. is using 154.92 CLEMARS. A request from San Diego area members - what map does the fire dept. refer to when dispatching? For Doug (CA-SD-025) - are you working on identifying the boundaries for the beats or dispatch areas?

From JOE (CA-SO-006): He wants to see more on Solano County and Contra Costa County. Other than what is in Police Call, that's it. He also wants more info for Sacramento County. Here are CHP codes.

10-1 Reception poor	10-11 Identify mobile frequency KA 4993
10-2 Reception good	10-13 Advise road or weather conditions
10-4 Message received	10-14 Provide escort
10-5 Relay message	10-15 Prisoner in custody
10-6 Busy, standby	10-17 Relay papers, supplies, etc.
10-7 Out-of-service	10-19 Return or report to _____
10-7R Out-of-service at home	10-20 Location requested
	10-21 Telephone _____
10-8 In-service	10-22 Disregard (message or assignment)
10-9 Repeat transmission	10-23 Stand by
10-10 Off Duty	10-28 Request for registration

10-29 Check for wanted (person, vehicle or object)	11-84 Direct traffic
	11-85 Tow truck required
10-31 Attempt suicide	11-86 Bomb threat
10-30 Improper radio traffic	11-87 Bomb found
10-35 Officer requires back up, respond code 2	11-98 Meet _____
	11-99 Officer needs help
10-36 Confidential information	Code 2 Urgent
10-36A Confidential information, subject possibly armed	Code 3 Emergency
	Code 4 Cancel back up
10-36F Confidential information, felony wants	Code 20 Notify press
	Code 33 Clear radio channels for emergency traffic
10-36M Confidential information, misdemeanor wants	187(PC) Murder
	207(PC) Kidnapping
10-37 What time is it?	211(PC) Robbery
10-39 Message or item delivered	261(PC) Rape
10-97 Arrived at scene	314(PC) Indecent exposure
10-98 Assignment completed	415(PC) Disturbing the peace
11-10 Take a report	417(PC) Brandishing a weapon
11-24 Abandoned vehicle	459(PC) Burglary
11-25 Traffic hazard (veh. or object)	647f(PC) Intoxication - in car on highway, etc.
11-27 License check, driver held	
11-41 Ambulance required	11500(H&S) Narcotics violation
11-44 Possible fatality	5150(W&I) Mental case
11-48 Provide transportation	20001(VC) Felony - Hit & run
11-66 Defective traffic signals	20002(VC) Misd. - Hit & run
11-79 Accident - Ambulance rolling	23153(VC) Felony drunk driving
11-80 Accident - Major injury	23152(VC) Misd. drunk driving
11-81 Accident - Minor injury	"X" used for female involvment
11-82 Accident - Property damage	"A" abandoned vehicle check
11-83 Accident - No details	

Cerritos College Security uses 464.325.

G. GRACE(CA-LA-592) is looking for Burbank Police radio codes and LAPD radio codes. He would also like maps of the L.A. county area covered by LAPD, LASD and location of fire engines within the co.

From HUGH (CA-LA-472): KABC 26.39 audio is up again. Been listening to border patrol in San Diego (usual wild west show) and HF - the band betwwen 6500 & 7500 Khz is too much! Numbers "spy" stations, pirates, bootleggers, drug smugglers, military - the works! A.C.S.B., spread spectrum, trunking... Bad time to be buying scanners. Obsolete before the factory ships 'em. I know a guy who fixed up a surplus military countermeasures receivers (60-600 Mhz tuneable, am/ssb/fm). Sounds good.
Morse ID on 450.35 "KLE914" (not in fiche). Magnetic storm last Sept. - Argentina on 35 mhz. Ought to learn spanish. Mike "Low band skip" has heard the Contras in Costa Rica!

Heard on a CHP freq was a unit making a stop on a possible drunk driver. After a few minutes the officer radioed it was a negative drunk, but the driver's DOB was 1889.

From The Communications Center Bulletin (915 N. Euclid Anaheim): Beverly Hills P.D. may give up 453.525 and 453.65 and move to 482.3375 and 482.3875 and 482.4375. Beverly Hills Fire may drop 460.575 and 460.625 and go to 482.5375, 482.5875 and 482.6375. 37.26 is a new mutual aid system for El Monte, San Gabriel, Temple City, Arcadia and Rosemead.
The CHP helicopter in Los Angeles Co. (H50) will no longer be in service in the area due to budget cutbacks.
The CHP silver frequency 42.08B/42.28M has been replaced by 42.42B/42.84M, the tan frequency, for Newhall #78, Lancaster #89, and Tejon # 102.

Misc. Freqs: South Coast Plaza security 464.475 & 464.50. Fun bus 851.0375. Huntington Bch. schools 464.875. Gold Shield security F1 151.625 F2 151.715. Westec security Pasadena 860.7875. Long Beach Unified school district 463.4375 simplex and 463.40 repeater. Koll construction 154.60, 151.745 & 151.625. Lampost pizza 462.05. Bonafide security 464.85. Hughes aircraft paging Fullerton 451.625. Burns security @ San Onofre power plant 464.50. Security signal 461.8875. Whittier Presbyterian Hospital security (?) 466.0625 & 468.4125. Does anyone have Skytyper's freq?

There is a newsletter from Baton Rouge, LA called the Louisiana Frequency Exchange. It has timely news and events related to the field of communications, personal stories, communication profiles, freq listings, and news articles. It's quite interesting. For info write them at P.O. Box 45913 Baton Rouge, LA 70895

From RENE (CA-SC-018): I was fortunate enough to receive a copy of the CA Dept. of General Services Manual DM 420.2.1, issued 12-17-82, which consists of 47 pages on the CHP Radio system. Enclosed is a CHP Division Boundary Map, a Division sequence and a Frequency sequence of CHP remote sites, on which I spent quite a few hours extracting the info from the manual in order to realign it in my two formats. This manual has a wealth of info, which sort of reminds me of Mike Foster's old Signal 10-11. (Info appears in this col.)

Also from RENE: Just received Bob Grove's new Scanner Beam II. Awaiting a break in our inclement weather (wind & rain) before replacing my old rotor mount Scanner Beam I with this improved model. Am modifying it by eliminating the metal off-set & mounting the antenna directly to a 3/4 inch 4 foot PVC pipe & into the rotor to help eliminate any interaction, I hope! Mfg. specs, range 30-960 Mhz. Typical gain above dipole reference - 40 Mhz, Unity dB - 150 Mhz, 7 dB - 300 Mhz, 6 dB - 450 Mhz, 9 dB - 900 Mhz, 7dB.

From ROBERT (CA-BU-005):

California Highway Patrol (base and mobile pairs)

Silver	**42.080 Base**	**42.280 Mobile**	
Gold	**42.120**	**42.200**	
Blue	**42.340**	**42.180**	**Intersystem & Aircraft speed traps!**
Purple	**42.400**	**42.160**	
Tan	**42.420**	**42.840**	
Pink	**42.440**	**42.760**	**(pink) 42.280 (red)**
Black	**42.460**	**42.700**	
Gray	**42.480**	**42.680**	**#104 #35 #39 #93 #43**
Brown	**42.500**	**42.820**	**Chico,Oroville,Williams,Willows & Yuba City**
Yellow	**42.520**	**42.300**	
Green	**42.540**	**42.240**	
White	**42.560**	**42.720**	
Copper	**42.600**	**42.740**	
Orange	**42.880**	**42.660**	

All of Butte County is in the CHP brown zone.
42.340 is used for highway speed traps, plane & mobile.

154.905 is a state rpt. that rebroadcasts all chp traffic in this area.

Butte County Law & Gov't. channels, Rpt. listed first then input.

154.725/155.415	Butte County Sheriff's Office Ch. 1
155.910	" " " car to car Ch. 2
154.920	Clemars. BCSO & Oroville Police Dept. Ch. 3
155.115	Gridley Police Dept.
154.785/156.150	Oroville P.D. main net Ch. 5
155.475	Oroville Police car to car Ch. 6
155.760	" " (secondary) Ch. 7 also Public Works during daytime.
151.430/159.420	Calif. Fish & Game (local)
151.415/159.435	" " " " (state)
45.920	Butte Co. Intersystem police,fire etc.
44.640/44.960	State of Calif. parks & rec. rangers. Lake Oroville
44.880	" " " " " (secondary) Ch. 4
151.145	Feather River Rec. & Parks Dept.
460.450/465.450	State Police (protection of state property)
453.875/458.875	Lawnet---statewide intersystem
154.680/155.460	Dept. of Justice (DEA)
155.940/158.775	Butte Co. Gov't. building & agriculture & patrol
153.755/154.980	OES sacramento/Oroville fire
155.715/154.085	Paradise PD
154.875/155.775	Chico PD
155.160	Search & Rescue
155.280	Oroville Hospital Ambulance
153.815	Oro. Fire Dept.
154.190	El Medio Fire Dept.
151.400/159.375	Butte co. Fire Dept.

Oroville Police & Amb. sometime scramble using the simple single inversion type.

From DAVID (CA-SF-025):

MARIN COUNTY RADIO IDENTIFIERS:

MARIN COUNTY DEPARTMENT OF PUBLIC WORKS:
22A-administration; 22A7-airports; 22B-buildings/maintenance
22F-flood control; 22G- garage; 22E-engineering staff
22R-roads; 22S-survey crew;22T-traffic staff
22D-land development;22L-Nicasio Yard personnel

25series- County Department of Parks and Recreation
23series- County District Attorney Investigators
24series- County Department of Enviornmental Health
2series- Marin Municipal Water District Rangers
70series- City of Tiburon Department of Public Works
14series- County Coroner Investigators
18series- Marin Community College District Police
16series- Marin County Major Crimes Task Force

SHERIFF IDENTIFIERS:
1 ADAM 1: Sheriff
1 ADAM series: Captains and Lieutenants
1 CHARLES series: Civil Division
1 JOHN series: Juvenile Division
1 KING series: Investigations Division
1 X series: Sergeants
1 GEORGE series: Jailers and baliffs
Patrol units: queen(days); zebra(swing); baker(graves)
(BEATS(: 10 series: southern; 20- Ross Valley; 30-north; 40-west; 50-colleges)

GOLDEN GATE BRIDGE DISTRICT:
Unit 55: fire and rescue crash truck

HAZARDOUS MATERIALS TEAMS:
San Rafael Fire Station 52:(210 3rd St): Hazardous Materials Vehicle (available for countywide response; all FDs contribute funding)"
County Department of Enviornmental Health: Hazardous Materials Vehicle (also available for countywide response)
(both started service this year; legislation is in the works to require generators of haz materials to report this information to Marin County

in a manner similar to Santa Clara City's haz mat disclosure laws)

MARIN COUNTY FIRE DEPARTMENT: As per election, Rescue 95 at Woodacre has been redesignated a paramedic vehicle and staffed with paramedics; it previously was only a rescue truck staffed by firefighters. R95 services the southern and central half of unincoporated Marin County; greatly increasing paramedic response time. The other paramedic vehicle is R90 based at Pt. Reyes Station.

MARIN HUMANE SOCIETY operates on 45.64 mhz (30 series). This is the frequency that coroner and other county agencies (except Public Works) use for their business.

SAN FRANCISCO POLICE: Proposal by the chief to reorganize the 9 patrol districts into 2 divisions: Metropolitan and Golden Gate Divisions; each headed by a patrol commander. Swings, nights, and relief command shifts would be handled by a division lieutenant or captain. Also, a proposal to have all prisoner bookings handled at the Hall of Justice instead of the district station. All inall, bureaucracy continues to grow. Also, SFPD is not planning to go 800 mhz in the bear future; though they have the licenses. They hope that mobile display terminals will reduce crowded airwaves.

AREA & CALL PREFIX	COLOR	"B"	"M"
DIVISION # I "North"			
Alturas - 60	Blue	42.34	42.18
Garberville - 105	Green	42.54	42.24
Crescent City - 95	Green	42.54	42.24
Humboldt - 16	Green	42.54	42.24
Lakeport - 7	White	42.56	42.72
Mt. Shasta - 52	Purple	42.40	42.16
Quincy - 20	Blue	42.34	42.18
Red Bluff - 36	Red	42.44	42.28
Redding - 37	Red	42.44	42.28
Susanville - 38	Blue	42.34	42.18
Trinity River - 90	Red	42.44	42.28
Ukiah - 18	White	42.56	42.72
Williams - 39	Brown	42.50	42.82
Willows - 93	Brown	42.50	42.82
Yreka - 41	Purple	42.40	42.16
DIVISION # II "Valley"			
Auburn - 45	Green	42.54	42.24
Bridgeport - 71	Blue	42.34	42.18
Chico - 104	Brown	42.50	42.82
Gold Run - 70	Gray	42.48	42.68
Grass Valley - 42	Green	42.54	42.24
Jackson - 94	White	42.56	42.72
Lake Valley - 13	Gray	42.48	42.68
Oroville - 35	Brown	42.50	42.82
Placerville - 44	Green	42.54	42.24
Sacramento - 46	Gold	42.12	42.20
Sacramento - 112	Black	42.46	42.70
San Andreas - 49	White	42.56	42.72
Stockton - 62	White	42.56	42.72
Tracy - 103	Yellow	42.52	42.30
Truckee - 80	Gray	42.48	42.68
Woodland - 47	Black	42.46	42.70
Yuba-Sutter - 43	Brown	42.50	42.82
DIVISION # III "Golden Gate"			
Contra Costa - 19	Purple	42.40	42.16
Fairfield - 22	Purple	42.40	42.16
Hayward - 25	Tan	42.42	42.84
Marin-G.G. Br. - 34	Silver	42.08	42.28
Napa - 21	Orange	42.88	42.66
Oakland - 96	Gold	42.12	42.20
Redwood City - 91	Silver	42.08	42.28
San Francisco - 32	Pink	42.44	42.76
San Jose - 24	Brown	42.50	42.82
Santa Rosa - 17	Orange	42.88	42.66

Frequencies are MegaHertz (Mhz)

AREA & CALL PREFIX	COLOR	"B"	"M"
DIVISION # IV "Central"			
Bakersfield - 69	Brown	42.50	42.82
Coalinga - 88	Pink	42.44	42.76
Fresno - 65	Silver	42.08	42.28
Hanford - 68	Pink	42.44	42.76
Los Banos - 30	Orange	42.88	42.66
Madera - 66	Orange	42.88	42.66
Mariposa - 63	Orange	42.88	42.66
Merced - 64	Orange	42.88	42.66
Modesto - 48	Yellow	42.52	42.30
Porterville - 40	Pink	42.44	42.76
Sonora - 61	White	42.56	42.72
Visalia - 67	Pink	42.44	42.76
DIVISION # V "Southern"			
Baldwin Park - 81	Orange	42.88	42.66
Central L.A. - 15	Black	42.46	42.70
East L.A. - 82	Yellow	42.52	42.30
Glendale - 98	Brown	42.50	42.82
Newhall -78	Silver	42.08	42.28
Santa Fe Springs - 83	Gold	42.12	42.20
South L.A. - 77	White	42.56	42.72
Tejon - 102	Silver	42.08	42.28
West L.A. - 79	Pink	42.44	42.76
Malibu - 109	Pink	42.44	42.76
West Valley - 56	Brown	42.50	42.82

"B" - Base & Car to Car
"M" - Car to Station
Mountaintops receive both channels and transmit "B" channel. Cars transmit either channel to mountaintops and "B" channel car to car and local stations. Cars can receive the "M" channel.
The "Blue" frequency (42.34 42.18) is used statewide as a secondary frequency and all cars and stations can operate on it, regardless of the primary frequency.

Extender frequencies, statewide:
f1 154.905 f2 154.920

From Rene (CA-SC-018)

DIVISION # VI "Border"			
Banning - 97	Green	42.54	42.24
Blythe - 6	Red	42.44	42.28
Capistrano - 113	Gray	42.48	42.68
El Cajon - 108	Gold	42.12	42.20
El Centro - 85	Blue	42.34	42.18
Indio - 76	Red	42.44	42.28
Oceanside - 92	Gold	42.12	42.20
San Diego - 87	Orange	42.88	42.66
Santa Ana - 86	Purple	42.40	42.16
Westminster - 55	Gray	42.48	42.68

DIVISION # VII "Coastal"			
Buellton - 3	White	42.56	42.72
Hollister-Gilroy - 23	Green	42.54	42.24
King City - 8	Green	42.54	42.24
Monterey - 27	Green	42.54	42.24
Paso Robles - 9	White	42.56	42.72
San Luis Obispo - 28	White	42.56	42.72
Santa Barbara - 29	Green	42.54	42.24
Santa Cruz - 26	Green	42.54	42.24
Santa Maria - 14	White	42.56	42.72
Ventura - 31	Purple	42.40	42.16

DIVISION # VIII "Inland"			
Antelope Valley - 89	Silver	42.08	42.28
Arrowhead - 101	Copper	42.60	42.74
Barstow - 73	White	42.56	42.72
Bishop - 72	Blue	42.34	42.18
Mojave - 59	White	42.56	42.72
Ontario - 84	Orange	42.88	42.66
Riverside - 74	Green	42.54	42.24
San Bernardino - 75	Copper	42.60	42.74
Twentynine Palms - 106	White	42.56	42.72
Victorville - 12	White	42.56	42.72
Needles - 114	White	42.56	42.72

From Gene Roske (CA-LA-147)

Several days ago, while driving to my job with Lockheed at the Burbank Airport, I was listening to the routine morning radio traffic on my M-400. Suddenly, I heard "CRASH-3 requesting a backup!"

"That's unusual," I thought. An LAPD CRASH unit working the valley at 7:00 a.m.? I glanced at the display on my scanner: "158.295". Now, that's <u>really</u> strange! What was a CRASH unit doing on the Lockheed frequency? This could be something big!

Just then, I rounded a curve on the airport perimeter road. There was a Lockheed Fire Department aircraft crash response engine with its lights flashing, standing in front of the fire station. As I approached, I saw a fireman come running out through the opening station doors.

CRASH-3 needed help backing into the garage!

Railroads

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

Greetings once again and welcome to another edition of the Railroads Column. Winter is in full swing and scanners crackle with the excitement that winter weather brings, so let's turn up the volume and open the mailbag.

PITTSBURGH LIGHT RAIL TRANSIT

by THOMAS P. FRIEND (PA-017)

On Sunday April 15, 1984, PAT (Port Authority Transit) opened the first 2.8 miles of its LRT system running from the South Hills to downtown Pittsburgh. Also put into service was the new South Hills Rail Center located at the South Hills Village in Bethel Park, PA. The 61-acre site includes a maintenance & storage building, radio operations control center, and the LRT system "yard".

The next part of the LRT system to be opened will be the downtown subway. This section may be opened by July 1, 1985. It was to have been opened by Thanksgiving Day 1984 but PAT made a decision to wait

until July. Testing of the downtown subway is now scheduled to begin early in 1985. The system includes 45 rehabilitated trolleys and 55 new light rail vehicles.

For more information see RCMA Newsletters May 1983 and October 1983, page 65. In the Oct. 1983 issue of RCMA page 65 was a list of four new UHF frequencies. Since then I may have found another freq.: 460.050. This freq. may be used for the downtown subway security.

Some general PAT info:

30.90	Ch 1 Route Foreman & PAT Police
30.82	Ch 2

NORTHEAST ILLINOIS REGIONAL COMMUTER RAILROAD CORPORATION

Jim Cavanagh (IL-060) writes to say he heard communications of the N. E. Ill. R. R. on 160.675 and 160.770, and wonders where this railroad is. Well, it isn't a railroad as we ordinarily think of them. It is a company formed to take over the Chicago commuter operations of two bankrupt railroads: Rock Island and Milwaukee Road. The Regional Transportation Authority supplies the money and the NIRC carries out the actual operations. What Jim heard on 160.675 was actually on 160.680, a former Rock Island PBX channel. Here are the frequencies licensed to NIRC and their known uses. If any member has more information on what each channel is being used for, please help us to fill in the blanks:

160.635	LaSalle & Bureau County RR (runs on NIRC ex-Rock Island track between Chicago & Blue Island)
160.680	
160.770	Road-Milwaukee Road
160.935	
161.220	
161.340	
161.610	Road-Chicago to Joliet (ex-Rock Island commuters)

BAY COLONY RAILROAD

Carl Gerosa (NY-117) sends another report from Massachusetts. He has heard the Buzzards Bay Tower on the 160.305 repeater output but is not close enough to verify the input frequency. Also the "Bay Colony Train Dispatcher" has been heard on 160.800, the Conrail road channel. Bay Colony is licensed on 160.800 since it operates over Conrail track between Attleboro, Middleboro, and South Braintree.

AMTRAK'S CHICAGO YARD

by BILL FARMER (CA-VE-010)

Amtrak's 14th Street Yard, built on the site of the former Pennsylvania Railroad 12th Street Coach Yard, is the most modern passenger train servicing facility in the country. For example, there are two indoor inspection tracks, each with a pit between the rails, and each capable of holding a complete 18-car train. Workers in this yard are Amtrak employees, except for the switch engine crews. They are still employees of Conrail, even though they operate Amtrak locomotives over track owned by Amtrak and the Chicago Union Station Company. Eventually they will probably become Amtrak employees too.

Operations in the yard are overseen from a high tower above the main shop building. Lumber Street Interlocking, operated from the tower, controls a stretch of main line from Chicago Union Station to South Branch Bridge. It also controls the raising and lowering of the bridge for river traffic; three television cameras allow the operator to see boats upriver, boats downriver, and the track on the bridge. A 24-channel scanning tranceiver scans Amtrak's channels and the road channels of all major railroads in the Chicago area which operate trains for Amtrak. You would think that in a major city like this, such a radio would be chattering constantly, but it is not. The radios in all Amtrak locomotives are equipped with tone-coded-squelch, and so is the transceiver at Lumber St. Interlocking. For this reason the Lumber St. radio receives Amtrak locomotives on all channels, but turns a deaf ear to the many freight locomotive radios in the area.

Omitting the road channels used by Amtrak trains while operating

on freight railroads, here are Amtrak's own frequencies in Chicago:

156.650	South Branch Bridge-Marine Channel 13
156.800	South Branch Bridge-Marine Channel 16
160.240	Police (10 watt base, no mobiles. Possibly rptr.)
160.305	Commissary
160.365	FCC license, unknown use
160.395	FCC license, unknown use
160.740	Transportation (switch engines)
161.265	Mechanical (carmen)
161.325	Engineering

Ordinarily we would say that 160.240 is not a legitimate frequency since it falls between the regular allocations which are 15 MHz apart (160.230 and 160.245). However, in Chicago sometimes strange things are done to minimize interference because of the great amount of radio congestion there. In this case your editor has seen the actual license at Lumber Street and it lists 160.240. It is also shown that way in the FCC microfiche.

WASHINGTON (D.C.) TERMINAL

by BILL FARMER (CA-VE-010)

The Washington Terminal Co. has been bought by Amtrak and the various departments are being merged into Amtrak operations one by one. The blue and white switch engines are being repainted into Amtrak colors, and repeaters have been added to the radio system. As usual, we list repeaters with their output frequencies first:

160.290/161.370	Ch 1	Operations (switch engines & carmen)
160.350/161.265	Ch 2	Signal Maintainers, Baggage Handlers, Fixed Plant Maintenance
161.445/160.440	Ch 3	Police
?	Ch 4	Administration-rarely used

All the above frequencies are listed in the FCC microfiche. In addition, there is one additional frequency shown as 10525 MHz. Presumably this is where the frequency for channel 4 should be shown. It brings up a question that has been puzzling your editor for some time: Scattered throughout the FCC microfiche there are many listings on 10525 MHz which are obviously incorrect. Why? Perhaps it is a way of keeping the real frequencies secret by making them look like typographical errors. Maybe they really are typographical errors. Can any of our resident microfiche experts explain what's going on here?

NATIONAL RAILWAYS OF MEXICO

by BILL FARMER (CA-VE-010)

173.225/173.600	Ch 1	Dispatcher (verified)
173.225	Ch 2	Road (verified)
172.450		Unknown use, unverified
173.325		Unknown use, unverified
173.360		Unknown use, unverified

Although the former United Railways of the Southeast (running to the Yucatan Peninsula) has been merged into the National Railways, it reportedly is using a different frequency for its road channel (frequency unknown).

ADVANCED TRAIN CONTROL TECHNOLOGY

summary of an article by WALTER FRIESEN
article contributed by ROB (our Canadian Column editor)

Writing in the October 1983 issue of Engineering Digest magazine, Mr. Friesen describes a train control system which has been developed by SEL Canada, a division of ITT Industries of Canada Ltd. The system is called SELTRAC and is being tested by the Urban Transportation Development Corporation of Ontario. It is in service on a transit line in Berlin and will be used on new transit systems being built in Vancouver BC, Toronto ONT, and Detroit MI.

Passive transponders, needing no local power, are mounted on the ties and transmit information to passing trains, including exact track position, speed limit, and distance to the next transponder. Comput-

ers in the locomotive of each train are in constant communication with central computers in the dispatcher's office. Inductive loops between the rails provide the communications link. Between the wayside equipment and the central control point any means of transmission may be used: wireline, conventional radio, or microwave. The dispatcher is provided with up-to-date information on each train's position, speed, and locomotive performance. Position can be plotted much more closely than with conventional signaling systems. Voice communication is also provided.

The system can adjust the distance between trains, taking into account tonnage, speed, grades, and other factors affecting stopping distance. This allows closer headways than previously possible. The dispatcher can give the central computer information on permanent or temporary speed restrictions and those restrictions will be enforced even if the train engineer neglects them. The dispatcher can even command any or all trains to make an emergency stop. Trains can be commanded to slow down in order to avoid having to come to a complete stop in congested areas, saving fuel and brake shoes.

The company expects that for railroads needing to increase capacity, it will be more cost-effective to install an advanced control system than to expand the physical size of the railroad plant. We may see more installations of this type in the future.

That's all we have this month—looking forward to hearing from you in time for next month's newsletter...

—Gary & Bill

This column is for the exchange of space communications systems (manned or unmanned), frequency information, orbital data, hobby receiving equipment and antennas. Questions and column input pertaining to Space Communications Monitoring should be sent to:

Larry Van Horn (TN-014), 1111 N. Carrier Pkwy., B-107, Grand Prairie, Texas 75050.

Greetings from Space Communications. Hope your holidays were good ones. Space Comm finally got some mail, hence there is a column this month. Uncle Sam is moving your editor again. Seems like only yesterday that we came here to Dallas from Memphis. At any rate, note to all potential contributors, after the middle of February please hold all correspondance till our new address appears in print. I do not trust the PO to forward anything and I do not want to lose your valuable contributions. They have been thin lately. Remeber this is your column and newsletter. Each column in the RCMA would not be possible without your support.

Surely we have members out there that monitor some satellite on a regular basis. I know that some of you have TVRO, weather satellite, or amateur radio satellite setups. You have been quiet lately. Alot of members might be interested in hearing about what is on each satellite TV transponder or audio sub-carrier. Weather satellite folks might like to talk about your setups and the satellites you monitor. AROps might want to cover all of the different AR satellites, frequencies, etc. 225-400 Mhz range is rich in activity and has gotten no coverage from the membership in some time.

Since this is your column, your support is needed. I will not write it for the RCMA members every month. I will supplement your information with my vast files of info but we want to hear from you. Are you going to be a shaker or a mover? The choice is up to you. Become an active supporter of your RCMA today. We do need your support. Nuff said, I'll get off my soap box now.

SNEAK PEAK AT RUSSIAN TV

Tired of the ordinary fare on American television? Want to see for yourself what the Soviet government is showing their citizens during prime time? If you own a backyard earth station (and many RCMA members do) you may be able to get a glimpse of Russian television without any added expense. Here's how:

The easiest way to find a Molniya bird is to monitor between 4PM and 7:15 AM EST. Tune your receiver to 3.875 GHz, just above US transponder 9, and aim your antenna north, in the direction of Mansel Island, Hudsons Bay, Ontario, Canada. Molniya's apogee is about 40,000 Km above Mansel and the satellite will appear to hang almost stationary for about one hour at that location.

If you have an azimuth-elevation mount, try swinging the antenna a few degrees around until you find the satellite's downlink. Once you find the satellite, you will be able to track Molniya through most of its 6-hour loop until it is turned off at the U.S.-Canadian border.

Since it is transmitted at 25 rather than 30 frame/s, as in the U.S., the picture from Molniya will roll vertically. Simply adjust the television sets vertical hold to stabilize the picture. The set's vertical linearity might also have to be adjusted since the picture's 625-line scan might make the Russians appear tall and skinny(must be another Vodka shortage,hi,hi). There may also be some jitter and tearing of the picture but it should be watchable.

Home viewers were previously able to pick up another Russian satellite- Gorizont- but that geostationary satellite no longer transmits a strong signal towards the US. The satellites mission was redefined in mid-September and the powerful transponders are now assigned to digital services.

Four Molniya satellites travel in an eccentric polar orbit. Every six hours, one of the satellites skims through the Southern hemisphere and rises in the sky as it travels over the US up the Mississippi River. Television relay to the Soviet Union begins as the bird reaches mid-Ontario. During its transmission, the satellite continues to soar higher, reaching 40,000 Km apogee some two hours after transmission begins.

At the end of its six-hour stint, as the satellite reaches its turn-off point just north of the Great Lakes, transmission is handed over to the next satellite, which is beginning its loop north of Duluth, Minneasota. Because of its polar orbit, the Molniya satellite can provide one-hop distribution to almost anywhere in the densely-populated Northern hemisphere. By comparison, a geostationary system requires three satellites.

Many thanks to Amateur Satellite Report number 89/90 issue for the above information. Their address is Satellite Report, 221 Long Swamp Road, Wolcott, CT 06716. ASR is apart of the AMSAT folks information organization. Be sure to tell those fine folks Space Comm sent ya.

Personal location satellites

George Dubois, FCC editor sent me a microfiche page concerning the application to the FCC by Geostar Corp. for their new personal radiolocation satellite system. Geostar 1-3 is looking at launch dates in the 1987 time frame. Uplink signals will be centered on 1618 and 5175 MHz. Downlink signals will be centered on 2492 and 5125 MHz. This all depends on if the FCC approves the application and clears the spectrum space for Geostar.

In a recent Aviation Week, it was mentioned that the receivers that could be used with this system could eventually be worn on your arm, and give you your exact ground location. Orbital locations for Geostar 1-3 will be in the geostationary clark belt at 70, 100, 130 degrees west.

Now can "will you beam me aboard, Scotty!" radios for your pocket be far behind?

Till next time, 73's and best of satellite listening, be sure to drop us a line.

RCMA SPECIAL FEATURE RCMA

EVER DX CABLE TV? I DID...

By Ed Sirovy (IL-004)

Because of interest shown at the last RCMA-Chicago Chapter meeting, I'm expanding my presentation on my cable-TV experience.

Although cable-TV is supposed to be closed circuit, because it uses radio waves, if that closed circuit opens somewhere, it can broadcast beyond the limits of the cable. The subscriber drop line is kept at a level much higher then normally found on antenna leadin to provide a solid noise free signal. To prevent a subscriber from affecting other cable users, a resistance is placed between a subscriber and the trunk line. This means the trunk line must be operated at a higher level still. Thus a break in the trunk line integrity will radiate farther than a problem with a subscriber drop.

In August of 1984, a storm dropped several heavy branches onto the cable trunk line in my alley. NY channel 9 appeared on my channel 4. The UHF Atlanta superstation came in on channel 13. Manipulating the tuner controls on my (35 channel) cable ready VCR brought in HBO, Showtime, Cable News Network and other cable services with varying levels of snow and intermod. Worse yet, regular Chicago stations now had a ghost caused by the cable retransmission being microwaved around first thus being rebroadcast milliseconds behind the direct reception. Finally, my scanner was being jammed all over the spectrum.

A call to the FCC brought a dont disturb my bureaucratic games, what do you want me to do, be a public servant? attitude. I called the FAA as they have a remote control sight at nearby Downers Grove / Woodridge in case their system was getting interference. A call to the local cable company office confirmed my suspicion that employees were never trained about a closed circuit "broadcasting". Besides, a service call was rejected by their computer because I was not a subscriber.

I located the regional cable company office in a city it did not serve. From their operator, I found out the name of the Chief Engineer who did not return my call. I sent a Certified Letter to him citing chapter and paragraph the FCC regulations. I established my right as a user of the electromagnetic spectrum as a broadcast watcher (scanner owners have no rights as they are not the intended recipient normally) that could not watch non-local stations anymore as well as having regular channels ghosted. This letter could then be used as an exhibit for a formal complaint (original and ?? copies please)to the commission in Washington. That brought results, a call from the Construction And Repair Chief besides the Chief Engineer.

I had prepared for this by walking several blocks in all direction with a portable scanner to find the point of highest signal strength. The cable companys sweeps were inconclusive because they used a wide band measuring device. Thus they measured up to 6 MHz of a public safety/ business band spectrum. About 100 police and fire departments and 1000 business users masked any meaningful meter reading. After replacing first the connectors, then 4-drop coupler and finally a 500 foot section of trunk cable, the interference cleared up.

A nearby Ham continued to suffer interference however. He is a subscriber. He had added a section of coaxial cable to the cable connecting his TV set with his VCR. That cable purchased at a handy neighborhood national electronics chain store. The cable did not have a 100% shield. A check of the Beldon catalog revealed cable with anywhere from 100 to 80% shielding. He did himself in. His lesson is dont buy anything off the shelf regardless of brand name until you have checked the specs in a manufacturers catalog because YOU can cause radiation!

For further information, see Feb 82 QST pages 11 to 15.

BACKGROUND REPORT - CABLE-TV

A TV signal occupies about 4.5 MHz of bandwidth. When this signal is sent in the 0 - 4.5 MHz portion of the electronic spectrum it is known as a baseband signal. Baseband is used in TV stations to mix and switch pictures and is also used between computers and monitor CRTs. If you dub between VCRs you should use the baseband instead of the RF conections to bypass modulator and tuner losses. Because a coaxial cable can carry only one baseband signal, this technique would never do for cable TV.

The first cable systems solved this problem by sending these pictures by using Radio Frequencies used to send regular TV stations on channels 2-13. These were only 12 channel systems and were a waste of cable capacity. By providing subscribers with tuner/converters, it was possible to use non-standard frequencies for TV transmission. These systems provided FM retransmission and added mid-band channels using the spectrum between 108 and 174 MHz. These were typically 20 channel systems. As low noise higher frequency transistors were developed, the spectrum above 216 MHz (CH 13) was employed, first as about 35 channel systems up to 300 MHz and later 400 and beyond for 60+ channel installations. Another technique that had to be developed is called tilt compensation. Because cable loss increases with frequency, amplifier gain must also increase with frequency.

By the way, not all cable compatible TV sets or VCRs have full 400+ Mhz

capability. Some only have mid-band. Others only go up to 300 MHz (35 channels). The same is true of so-called cable tuners or upverters offered to consumers by electronics dealers, buyer beware!

There are three cable TV band plans. The system that just adds on to the regular broadcast channels is called the Standard System.

A second system is called the Incremental Related Carrier System. In this system, all carriers are the same as the standard system except for channels 5 and 6. They are shifted 2 MHz up so that they are exactly 6 MHz increments from channels 2-4.

In the Harmonic Related Carrier System all carriers are shifted down 1.25 MHz from the IRC system so that all harmonics land on another carrier.

Caution, not all cable ready systems accomodate the IRC or HRC systems. Some equipment has a Standard/HRC system switch. Others have 3 position switches. If you have a broadcast/cable switch or no switch at all, lots of luck. Buyer beware.

WHAT YOU WILL HEAR SCANNING A TV CHANNEL

The sound portion of a TV signal is wide band FM. With a narrow band scanner you will here a distorted sound at best. At worst your detector may miss the signal completely. The sound carrier is picture +4.5 MHz.

The picture portion is a semi-single sideband AM signal with full carrier. Because the synchronizing signals are at 100% modulation, a good Armstrong limiter-descriminator circuit still could not ignore it. The sync freqs that modulate the carrier are 59.94 cycles vertical buzz and 15,734.264 cycles horizontal ringing buzz. The actual picture patterns will be transient pulses from -1.25 MHz to +4.2 MHz from the picture carrier.

Still another point to watch out for is located at picture +3.5795454545... MHz. this is the color sub-carrier. You will probably find a buzz there unless the picture is transmitted in black and white. (B&W film is transmitted with color generator turned off otherwise the color film camera transmits a yellowish overlay.)

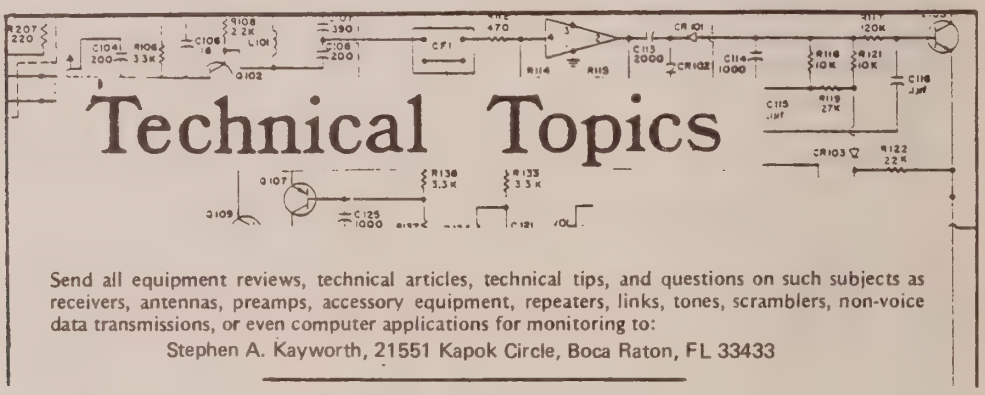
The part of the video spectrum that is the quietest is at carrier +2 to carrier +3 MHz. Look there for hidden communications first. The picture carrier is exactly 1.25 MHz from the bottom of the channel.

STANDARD BROADCAST AND CABLE CHANNELS

CHAN	VISUAL	AURAL		CHAN	VISUAL	AURAL		CHAN	VISUAL	AURAL
2	55.25	59.75	V	47 II	349.25	353.75	H	U 35	597.25	601.75
3	61.25	65.75	H	48 JJ	355.25	359.75	Y	U 36	603.25	607.75
4	67.25	71.75	F	49 KK	361.25	365.75	P	U 37	609.25	613.75
-	-- --	-- --	•	50 LL	367.25	371.75	E	U 38	615.25	619.75
5	77.25	81.75	L	51 MM	373.25	377.75	R	U 39	621.25	625.75
6	83.25	87.75	O	52 NN	379.25	383.75	.	U 40	627.25	631.75
-	-- --	-- --		53 OO	385.25	389.75	B	U 41	633.25	637.75
14 A2	109.25	113.75	M	54 PP	391.25	395.75	A	U 42	639.25	643.75
15 A1	115.25	119.75	I	55 QQ	397.25	401.75	N	U 43	645.25	649.75
16 A	121.25	125.75	D	56 RR	403.25	407.75	D	U 44	651.25	655.75
17 B	127.25	131.75	•	57 SS	409.25	413.75		U 45	657.25	661.75
18 C	133.25	137.75	B	58 TT	415.25	419.75		U 46	663.25	667.75
19 D	139.25	143.75	A	59 UU	421.25	425.75		U 47	669.25	673.75
20 E	145.25	149.75	N	60 VV	427.25	431.75		U 48	675.25	679.75
21 F	151.25	155.75	D	61 WW	433.25	437.75		U 49	681.25	685.75
22 G	157.25	161.75		62 XX	439.25	443.75		U 50	687.25	691.75
23 H	163.25	167.75		63 YY	445.25	449.75		U 51	693.25	697.75
24 I	167.25	173.75		64 ZZ	451.25	455.75		U 52	699.25	703.75
--	--- --	--- --		65 AAA	457.25	461.75		U 53	705.25	709.75
7	175.25	179.75	V	66 BBB	463.25	467.75		U 54	711.25	715.75
8	181.25	185.75	H	67 CCC	469.25	473.75		U 55	717.25	721.75
9	187.25	191.75	F					U 56	723.25	727.75
10	193.25	197.75	.					U 57	729.25	733.75
11	199.25	203.75	H					U 58	735.25	739.75
12	205.25	209.75	I					U 59	741.25	745.75
13	211.25	215.75						U 60	747.25	751.75
--	--- --	--- --						U 61	753.25	757.75
25 J	217.25	221.75	S					U 62	759.25	763.75

26	K	223.25	227.75	U					U 63	765.25	769.75
27	L	229.25	233.75	P	U 14	471.25	475.75	U	U 64	771.25	775.75
28	M	235.25	239.75	E	U 15	477.25	481.75	H	U 65	777.25	781.75
29	N	241.25	245.75	R	U 16	483.25	487.75	F	U 66	783.25	787.75
30	O	247.25	251.75	.	U 17	489.25	493.75		U 67	789.25	793.75
31	P	253.25	257.75	B	U 18	495.25	499.75		U 68	795.25	799.75
32	Q	259.25	263.75	A	U 19	501.25	505.75		U 69	801.25	805.75
33	R	265.25	269.75	N	U 20	507.25	511.75		----	--- --	--- --
34	S	271.25	275.75	D	U 21	513.25	517.75		T 70	807.25	811.75
35	T	277.25	281.75		U 22	519.25	523.75		T 71	813.25	817.75
36	U	283.25	287.75		U 23	525.25	529.75		T 72	819.25	823.75
37	V	289.25	293.75		U 24	531.25	535.75		T 73	825.25	829.75
38	W	295.25	299.75		U 25	537.25	541.75		T 74	831.25	835.75
--		--- --	--- --		U 26	543.25	547.75		T 75	837.25	841.75
39	AA	301.25	305.75	H	U 27	549.25	553.75		T 76	843.25	847.75
40	BB	307.25	311.75	Y	U 28	555.25	559.75		T 77	849.25	853.75
41	CC	313.25	317.25	P	U 29	561.25	565.75		T 78	855.25	859.75
42	DD	319.25	323.75	E	U 30	567.25	571.75		T 79	861.25	865.75
43	EE	325.25	329.75	R	U 31	573.25	577.75		T 80	867.25	871.75
44	FF	331.25	335.75		U 32	579.25	583.75		T 81	873.25	877.75
45	GG	337.25	341.75		U 33	585.25	589.75		T 82	879.25	883.75
46	HH	343.25	347.75		U 34	591.25	595.75		T 83	885.25	889.75

IRC CHANNEL 5; 79.25V, 83.75A: CHANNEL 6: 85.25V, 89.75A
HRC SYSTEM, Subtract 1.25 MHz from IRC SYSTEM
Original cable systems were only 12 VHF channels, later 20+ systems added mid-band. As cable expanded, systems went to 300 MHz then 400 MHz, some may be approaching 500 MHz. "Cable compatible"equipment may not accommodate HRC or IRC band plans or may cut off at 300 MHz.



Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, or even computer applications for monitoring to:

Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

SPURS AND HARMONICS

Over the past few months I have had some correspondence with Chuck (IL-141) regarding signals he has been hearing on the low bands. It seems that he has been able to hear the same signal simultaneously on more than one frequency. The question arises as to whether these signals are, in fact, being "simulcast" or whether there might be another explanation for their existence.

One possible explanation, mentioned by Chuck, is that the transmitter he was hearing was putting out "harmonics." Another possibility is that the transmitter had a "spurious" emission, usually just called a "spur". A third possibility is that the cause of the signals was in the scanner and not from the distant transmitter at all. Let's get an understanding of what these three possibilities involve.

Harmonics: When talking about harmonics, you must first know the fundamental frequency. Where two-way radio is concerned, the fundamental frequency would be considered the normal operating frequency of the radio. Let's use 154.400 MHz for example. The 2nd harmonic of this frequency is 308.800 MHz. The 3rd harmonic is 463.200 MHz. It becomes obvious right away that the frequency of the harmonic is directly related to the fundamental frequency and that the relationship is always a whole number. There is no such thing as a harmonic which is 2.5 times the fundamental frequency. Notice that the third harmonic of 154.400 MHz falls in the middle of the UHF band (463.200 MHz). Because of this, it is important that radios designed for use in the VHF range have a suitable filter built in so that their 3rd harmonic doesn't interfere with a user on the UHF band. Most radios incorporate what is called, appropriately enough, a "harmonic filter" for this purpose.

Spurs: Unlike a harmonic, a spur can be found on any frequency and is more likely to be heard within the same band as the fundamental frequency. There is no set mathematical relationship between a transmitter's normal operating frequency and a spur it might be generating. Often, a spur is the result of improper transmitter adjustment. What can happen is that a stage in a transmitter can become de-tuned, and it will start to oscillate at a frequency determined by the components in the circuit. Quite often these oscillations will be somewhere near the radio's normal operating frequency since the circuit's component values were designed for that frequency anyway. Since the spur is on the same band as the fundamental frequency, any harmonic filtering will have no effect. Spurs are most often the result of equipment failure of some type. A spur-generating transmitter can often be heard simultaneously on more that one frequency in a band.

Scanner Related Problems: Whenever a bunch of strong signals get a chance to mix together in the same place, expect some strange things to happen. One place where this happens is in the front end of a scanner. Scanners, by their very nature, have fairly broad front ends. That is, they tend to allow signals on many different frequencies to get through the RF amplifier to the mixer stage. Another thing that is true of most modern scanners is that they tend to be very sensitive. This is a good quality, but it does have its drawbacks. On the one hand, it allows you to receive those hard-to-hear signals from far away. On the other hand, it contributes to the problem we all face at one time or another - intermod.

If a very strong signal enters a receiver, it can overload the front-end (RF Amp and mixer). When this happens, the front end circuitry can begin to operate in a non-linear mode. When the front-end is driven into non-linearity by a strong signal, it becomes very prone to intermod. Here's an example of how receiver front end overloading caused a problem for me. I run an Amateur radio repeater which receives on 146.265 MHz. It is physically located near two paging station, one of which operates on 152.0025 MHz and the other operates on 157.740 MHz. Everytime the two paging stations were on the air at the same time I would receive interference on 146.265 MHz. This problem got to be annoying until I finally figured out what was happening: The 2nd harmonic of the first transmitter was mixing (in my receiver) with the fundamental frequency of the second transmitter. Their difference was 146.265 MHz. The mathamatical relationship was as follows: (2 x 152.0025) - 154.74 = 146.265. My solution was to put a filter in my antenna line to get rid of one of the offending signals.

You may have noticed that when you connect a good outside antenna to your scanner you start receiving a lot of extraneous signals. It could be due to the fact that many strong signals are mixing together in your receiver's front-end and overloading it, causing you to hear a lot of intermod. A filter will help this problem. I have been gathering some info on scanner filters which are available and I will try to provide some comparisons for you in the near future. In the mean time, here's something you can try. If your scanner is connected to an outside antenna and you are hearing the same signal on more than one frequency or you are hearing more than one signal on the same frequency, remove the outside antenna and connect a short whip antenna to the unit. If all the extraneous signals go away, but you can still hear the signals you are supposed to hear, then you are probably experiencing intermod caused by front end overload. If you still hear the intermod, then there's a good chance that it's not being generated in you scanner but from some outside source.

This brings us to yet another way in which one signal can be heard simultaneously on more than one frequency. This can happen when two or more signals mix together outside the receiver. Remember - when two signals mix you get a minimum of four signals as a result. You get the two orginal frequencies and the their sums and differences. The resulting frequencies generated from a two-frequency mix can in turn mix together and generate still more mixing products. The following example demonstrates what I am talking about.

One day I started getting phone calls from some of the local amateur operators telling me that they were hearing my repeater (which normally transmits on 146.865 MHz) on another frequency in the two meter band - 146.91 MHz. I tuned my receiver to that frequency and, sure enough, there is was. After listening for a while, I noticed that it wasn't always there. It would come and go without warning, and sometimes I would only hear parts of conversations. That was my second clue that the intermod was not being caused in my receiver by overloading (the first clue was the number of hams who told me about the problem. They couldn't all have receiver overloading problems). I came up with the following clues while trying to figure this problem out: Another Amateur repeater (operating on 146.82 MHz) was located at the same site as my repeater. Their antennas were only about 25 feet apart. It was only when both of these repeaters were on the air at the same time that my repeater could be heard on the second frequency of 146.91 MHz.With this knowledge in one hand and my calculator in the other, I came up with the following results. When the two repeater frequecies mixed together, one of the mixing products, their difference, was 146.865 - 146.82 = .045 MHz. The mixing didn't stop there. next, .045 Mixed with 146.865. This time the offending mixing product was the sum of the two frequencies. The end result showed me how my problem was happening: 146.865 + .045 = 146.91 MHz.

This two step math problem shows, on paper, how mixing products, external to the receiver, can cause intermod problems, but where could the two signals have been mixing? One possibility is that they were mixing in one of the antennas. They could also have been mixing in one of the transmitter's final amplifiers - being rebroadcast along with the original signal. Believe it or not, they could also have mixed in a rusty joint between two pieces of dissimilar mtal in the structure of the building. I know it sounds strange, but it's been known to happen. At any rate, my problem cleared up after a few weeks, and I never found out what caused it.

Keeping in mind all these possible expanation for hearing one signal on two different frequencies, let's take a look at what Chuck has been hearing and see if any of the above explanations apply.

Chuck has been monitoring two channels used by an oil company in Zacatecas, Mexico. He has also heard the same transmissions on a number of other frequencies. The following list shows what Chuck has found:

Channel 1 - 33.55 MHz Channel 2 - 33.76 MHz

Additional Frequencies on which channels 1 and 2 were heard

Channel 1	Channel 2
30.45	31.29
31.70	31.90
32.31	32.53
32.93	33.14
34.78	34.38
35.20	

I have tried to find some mathematical relationship between the channel frequencies and the additional frequencies on which they were heard, but I haven't been able to make anything work out on the calculator. I would be interested in knowing if any of you have monitored these or similar signals on any of these frequencies. As Chuck describes it, these signals appear to be "simulcast," but they could also be the result of one of the situations I discussed above. If you have any insights as to what these signals might be, please write.

I hope this months column has given you some ideas as to where some of the signals you hear from you scanner come from. It's hard to tell what's going on at times, but sometimes we get lucky and figure one out. Watch for an upcoming column on scanner filters. A good filter placed ahead of your scanner can really take a bite out of intermod problems.

'till next time,

Steve

VHF Marine

Send information, articles, frequencies and their use, and questions that relate to private, commercial, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your February 1985 VHF Marine Column.

I was just looking back at some of the back issues of this column and realized that I have been the editor for just over two years.

Now in that time I have tried to cover everybody and everything but their is always something that I have missed. Why don't you sit down and drop me a line and tell me what I have missed or what you want to see and lets keep the column news fresh so everybody will enjoy it.

REPORTS:

Our first report comes from Matt (Wa-012) and concerns the Pudget

Sound Traffic System.

The Pudget Sound Vessel Traffic Service (PSVTS) located at Pier-36 in Seattle,is the heart of a Coast Guard Service designed to help prevent confusion among vessels in the Pudget Sound,Straits of Juan de Fuca and the San Juan Islands.The vessels that are required to use this system are as follows:

(1) Each vessel of 300 or more gross tons that is propelled by machinery.
(2) Each vesssel of 100 or more gross tons that is carrying one or more passengers for hire.
(3) Each commercial vessel of 26 feet or over in length engaged in towing another vessel astern,alongside or pushing ahead.
(4) Each dredge and floating plant.
(5) Each small passenger carrying vessel certificated in accordance with 46 CFR part 175 through 187 (subchapter T) when carrying more than six passengers.

When one of these designated vessels initially enters the Vessel Traffic Service Area,it is required to establish contact with the center,and to maintain radio contact throughout the passage,so that updated information can be sent to other vessels in the area.The center operates on channel 14 (156.700 Mhz.)

In addition to monitoring the vessels positions through radio reports,the center is equipped with eleven radar consoles which receive signals from any one of ten strategically located radar sites to help "paint" a picture of the traffic conditions throughout the radar coverage area.The ten radar sites now provide surveillance of approximately 2,500 square miles of the PSVTS area including the Straits of Juan de Fuca,Rosario Straights,Admiralty Inlet and Pudget Sound from Point Wilson south to Three Tree Point.There are additional plans to establish a radar site near Tacoma,in Commencement Bay,to monitor congested areas there as well.Each radar site has back up equipment in case of failure,enabling the center to have radar coverage 99.9% of the time.

The PSVTS is a culmination of ten years of operations,study and improvement.In 1974,Pudget Sound VTS became the first system in the nation to be made mandatory and is now one of two mandatory systems in operation.As originally established,the center had no radar coverage and depended solely upon radio reports to monitor vessel movements.In 1975,the center was augmented by a limited radar surveillance network covering the congeted areas of Pudget Sound and Elliott Bay.

During 1983,the traffic center kept track of an average of 18,000 tanker,freighter,tug,ferry and miscellaneous vessel movements each month,which has come to be approximately 700 a day.

++++ED NOTE: Coming soon will be a complete rundown on the Seattle area.

Our next report comes from Carl (NY-117) in the form of a follow-up to his report last month.Carl is going to college in the Boston,Ma. area and has the following listings.

157.050 (Ch.21)	- CG Marine Safety Office Providence,R.I.
	- CG Group Woods Hole (Falmouth),Ma.
	- CG Station Provincetown (Cape Cod),Ma.
	- CG Station Scituate,Ma.
157.075 (Ch.81)	- CG Group Boston,Ma.
	- CG Marine Safety Office Providence,R.I.
	- CG Station Point Allerton (Hull),Ma.
157.100 (Ch.22)	- CG Group Boston,Ma.
	- CG Group Woods Hole (Falmouth),Ma.
157.150 (Ch.23)	- CG Marine Safety Office Providence,R.I.
157.175 (Ch.83)	- CG Group Woods Hole (Falmouth),Ma.

Coast Guard Loggings Heard:

CG Cutter Towline talking to Marine Safety Office Providence
CG Cutter Hennepin (??????Not Listed) talking to Woods Hole
CG Cutter Point Jackson talking to Group Woods Hole
CG Helicopter 1368 talking to Station Scituate
CG 44307 talking to Station Point Allerton
The above units were monitored on a Regency M-400 with a homemade dipole.Carl also says that he has a Regency HX-1000 on order.I hope that he will give us a report on how it works.

In the September 1984 column the list of International VHF Marine Frequencies appeared.This month we have a little variation on that list.

Our next report comes from Geoff (ENG-005);he supplies us with the following information.

Regarding the International VHF Marine frequency list in the September issue of the RCMA Newsletter,our Admiralty List of Radio Signals (ALRS) gives the following variations for use in the USA:

Channels 07,18,19,21,22,23,65,,66,78,79,80,83 & 88 operate in the simplex mode,using the ship station transmitting frequencies as follows:

Channel Designator	Transmitting Frequencies Ship Stations	Coast Stations
07A	156.350	156.350
18A	156.900	156.900
19A	156.950	156.950
21CG	157.050	157.050
22CG	157.100	157.100
23CG	157.150	157.150
65A	156.275	156.275
66A	156.325	156.325
78A	156.925	156.925
79A	156.975	156.975
80A	157.025	157.025
83CG	157.175	157.175
88A	157.425	

There is no footnote to explain why Channel 88a is left blank for the Coast Station.

In the U.K.,the common frequency used by all Coastguards and Air/Sea Rescue Helicopters (operated by the Royal Air Force) is 156.000,with 156.300 used for ship/air communications during rescue work.

++++ ED NOTE:I have written to Geoff asking him if he can supply us with more information on the English Coast Guard & Frequencies.

In addition to this anyone in the Florida area with information on the Coast Guard in the Bahamas or the Texas area with information on the Mexican Coast Guard or the Canadian Border area with information on the Canadian Coast Guard please write in with the information.

Our next report comes courtesy of our "FCC TOPICS" Editor George DuBois.It concerns Lifesaving Equipment for Great Lakes Vessels , Emergency Position Indicating Radio Beacons.

For those of you that don't know what the ERIPB'S are;they are hand held units that transmit only.They are to alert the Coast Guard of an Marine Emergency and to transmit a beacon for radiolocation. These units will also float.

All the following information is from the "Federal Register / Vol 49. No. 200 & 201 / Monday & Tuesday October 15 & 166,1984".

This action provides for the use of emergency position-indicating radiobeacons (EPIRB'S) by survival craft on vessels in the Great Lakes.The commission initiated this proceding at the request of the Coast Guard to enhance the safety of vessels operating on the Great Lakes with the effective date of November 19,1984.

The Class C EPIRB's can operate on two banks of frequencies.

(1) 121.500 Mhz. & 243.000 Mhz.

(2) 156.800 Mhz. & 156.750 Mhz.

The frequencies of 156.750 & 156.800 Mhz. (F9 emission) are available to ERIRB Stations for facilitating search and rescue operations.Assignable frequencies for direction finding are as follows:410 khz.,500 khz.,2182 khz.,8364 khz.,121.500 mhz.,156.750 mhz. & 243 mhz..

George also states that the EPIRB'S will transmit for 1.5 seconds on channel 16 (156.800) for the distress alert and then for 15 seconds on channel 15 (156.750) for direction finding or homing in on the beacon by rescue units whether it be located on the big ship or the ships lifeboat or in the water.

This device applies only to large ships operating on the Great Lakes.

Our next report comes from Edward (IL-004).He gives us several bits of information concerning the Chicago,Ill. area.

(1) The Coast Guard use ch. 21 & 23 in the Chicago area.
(2) Chicago Public Safety Units use their regular Channels for marine work.
(3) The Chicago Coast Guard Station has been closed.
(4) Suburban Coast Guard Stations have a radio operator and occasionaly a 44 footer crew on duty.The large cutter is gone.
(5) 30 miles of Chicago shoreline is policed by 6 vessels (3-35 footers & 3-32 footers)owned by the Chicago Police Dept..
(6) Rescue is by the PD or the FD whichever is on patrol.The Chicago Fire Dept.has the following vessels: 2 small helicopters(no pontoons),2-92 footers,1-44 footer (Surplus) for Meigs Field,1-92 footer is kept in the Calumet River and the other is kept at Navy Pier except in the winter when it ties up in the Chicago River. The third 92 footer was scraped 2 years ago.
(7) The city of Chicago once had six steam fireboats at one time but they are all gone now.
(8) The Coast Guard has three or four helicopters working out of Glenview NAS,Ill. which cover hundreds of miles around.
(9) Coast Guard Notice to Mariners Broadcasts come from Group Milwaukee and are remoted thru Chicago,Ill. & Keokuk,Ia. (Upper Mississippi Group) is remoted thru Joliet,Ill.(??)
(10)We can hear some Army Engineer activity in our area.
(11)The St.Lawrence Seaway Traffic is fast disappearing.The Orr boats are off due to the steel shutdown.Bigger boats are replacing the smaller ones.
(12)Amoco retired its three tankers.Local lake traffic left with the schooners.Excursion boats to Michigan were replaced by the auto.Commercial fishing is down to 2-40 footers thanks to pollution and the now eradicated Sea Lamphrey.Coal barges are not needed because steel is about shut down and Edison does not use high sulphur coal.A Limestone boat hasn't been seen in two years.Newsprint now is being shipped by rail not sea. The rivers are low and court orders prohibit dirviting water from the Great Lakes because Canada & New York claim Hydro Electric Power would be cut.

Our next report comes in the form of a request from Judith (IL.-239) who requests a VHF Marine Frequency Profile of the West Side of Lake Michigan,including Illinois and Wisconsin.I am happy to comply.

VHF PROFILE: (West Side Lake Michigan - Illinois)
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Antioch:

Opatz,Ernest - WXF-675 - 156.450,156.800

Chicago:

Al's Enterprises - WHD-774 - 156.450,156.500,156.800
Amoco Oil Company - KSF-914 - 156.275,156.500,156.800
Bluebird Fishing Charter - WHD-787 - 156.550,156.800
Calmet Marine Market - WQB-542 - 156.500,156.800
Calumet Marine Towing - KSJ-428 - 156.500,156.650,156.800
Central Dispatch Inc. - WHF-802 - 156.675,156.700,156.800,156.975
Chicago,City of - KYH-549 - 156.600,156.650,156.800
WHF-745 - 156.600,156.800
WHF-746 - 156.600,156.800
WHF-747 - 156.600,156.800
WHG-612 - 156.600,156.650,156.800
WHH-322 - 156.450,156.800
WQZ-355 - 156.600,156.800
WXY-930 - 156.600,156.650,156.800
WXY-931 - 156.600,156.650,156.800
Chicago Park District - WQB-414 - 156.450,156.600,156.800,157.025

Chicago Sportfishing - WDT-551 - 156.450,156.800
Chicago Yacht Club - KQU-367 - 156.425,156.450,156.800
WRD-559 - 156.800
DiSanto Brothers Marine - WRD-754 - 156.500,156.800
Dunbar & Sullivan - WHF-847 - 156.350,156.800
Federal Marine Terminals - KPB-612 - 156.500,156.600,156.800
Flybridge Yacht Club - KEB-310 - 156.450,156.800
Great Lakes Dredging - KSC-779 - 156.400,156.800
Great Lakes Towing - KSA-278 - 156.500,156.600,156.800,156.800
Harbour Tender Co. - WQX-603 - 156.425,156.450,156.800
Illinois Bell Telephone - WAY-200 - 156.800,161.900,161.950
International Great - WXZ-527 - 156.500,156.800
L T S Enterprises Inc. - WHU-571 - 156.800,156.900,156.950
Mercury Sightseeing - KMD-255 - 156.800,156.950
Metropolitan Sanitary - KPB-571 - 156.450,156.700,156.800
Modular Dynamics Inc. - WHD-556 - 156.800,156.900,156.950
National Railroad - WHU-713 - 156.650,156.800
North American Towing - WHF-754 - 156.450,156.675,156.800
Radoseich,George - KZM-707 - 156.500,156.800
Seaway Services Inc. - KLG-358 - 156.500,156.550,156.600,156.700
156.800,156.900,156.950
Union Mechling Corp. - WFA-776 - 156.500,156.725,156.800
Wendella Sightseeing - KGA-287 - 156.700,156.800,157.025
Yacht Yard Inc. - WHU-381 - 156.475,156.800

Downers Grove:

Tampa Tug Corp. - WHU-395 - 4419.4 kc.,4420.8 kc.,6221.6 kc.
6223.0 kc.,8291.1 kc.,8292.5 kc.
12,429.2 kc.,12.430.6 kc.

Fox Lake:

Lake County - WDT-522 - 156.800,156.850,157.100

Highland Park:

Gunther,Allen - WHG-809 - 156.450,156.800

Waukegan:

Falcon Marine Co. - KAQ-384 - 156.500,156.800
Illinois Bell Telephone - KTD-564 - 156.800,161.825
Pace Communications - KVR-500 - 156.450,156.800
Salmon Stop Inc. - WXZ-223 - 156.800,157.025
Waukegan,City of - KVF-913 - 156.600,156.800
Waukegan Flotilla 3- - KYQ-810 - 156.425,156.800
Waukegan Port District - WHG-854 - 156.275,156.350,156.450
156.800

Wilmette:

Wilmette Harbor Association - WQZ-420 - 156.425,156.450,156.600
156.800

Part two of the West Side of Lake Michigan - Wisconsin VHF Profile will appear next month.

● NEW MEMBERS LIST ●

AL 026 SMITH, JOHN JR: 101 SIMILAX AVE, SELMA, AL 36701
AR 011 JONES, E J: 5 BIG PINE RD, BATESVILLE, AR 72501
AZ 062 SCOTT, WILLIAM: 4001 W PLANTATION, TUCSON, AZ 85741
AZ 063 KANNE, DAVID: 5257 W MAUNA LOA LN, GLENDALE, AZ 85306
CACL001 BIGGS, WILLIAM: 357 FREMONT ST, COLUSA, CA 95932
CALA302 SCHEIDECKER, RON: 354 LAVENDER LN, PLACENTIA, CA 92670
CO 043 CLARKSON, WILFRED: 13850 ALBROOK DR, #B410, DENVER, CO 80239
DE 018 SHUEY, KEN: 91-D CANVASBACK RD, SELBYVILLE, DE 19975
FL 191 ARENAL, AL JR: 6838 OAKDALE DR, TAMPA, FL 33610
IA 051 NEWTON, DONALD: RT 1, AINSWORTH, IA 52201
IL 289 WATERHOUSE, RALPH: 1425 BIRCH DR, MT PROSPECT, IL 60056
MD 104 HALL, DAVID: 4242 EAST-WEST HWY, #420, CHEVY CHASE, MD 20815
MO 089 MORGAN, MICHAEL: RT 1, BOX 648, SULLIVAN, MO 63080
MO 090 KELLY, VAN: RT 2, NORWOOD, MO 65717
NC 061 CROCE, LEE: P O BOX 213, YADKINVILLE, NC 27055
NY 297 LOVELL, LARRY: RD 2, BOX 29, OWEGO, NY 13827
NY 298 SOCHACKI'S SALES: 455 NASSAU RD, ROOSEVELT, NY 11575

New Members List continued

NY 299 ROGERS, PATRICK: 40 ARCADIA PL, STATIN ISLAND, NY 10310
OH 164 BARNES, MICHAEL: 3113 US 50, BATAVIA, OH 45103
OH 165 MORIOKA, GORDON: 1426 SHENANDOAH, CINCINNATI, OH 45237
TN 028 BATSON, W D: 2814 HODY DR, NASHVILLE, TN 37206
TX 154 WINTERS, KEN: 5307 MARSHFIELD CT, ARLINGTON, TX 76016
TX 155 DEARDS, DOUG: 3609 BRENTWOOD, ODESSA, TX 79761
UT 016 EVEREST, JOHN: P O BOX 2, DUGWAY, UT 84022
VA 090 RADLEY, GLENN: 4432 CLUB RUN RD, CHANTILLY, VA 22021
WA 063 BROGAN, RANDY: P O BOX 98, PULLMAN, WA 99163
WA 064 KIMBALL, JOHN: 6309 N W CHERRY ST, VANCOUVER, WA 98663

MEMBERSHIP CARDS AND BADGES

RCMA has no badges, decals, or membership cards for sale or distribution. The label on your newsletter is your membership card. While other clubs may have gimmicks or commercial good deals, our 'good deal' is your newsletter. You determine its content because you write it.

MAILING PROCEDURES

The newsletter mailed each month has a cover date for the following month. This practice is followed so that the US Post Office can deliver your issue no later than the first of the month designated on the cover.

New members whose applications are received before the end of the month will begin receiving the newsletter the following month. The first issue will be dated the month after that — as described above.

RENEWAL PROCEDURES

The date printed after the membership number on your newsletter mailing label shows the last month of your current membership. It is important to renew your membership by that date, as promptness on your part ensures uninterrupted delivery of the newsletter.

Renewal checks and new membership applications received by RCMA's General Manager, P.O. Box 542, Silverado, CA 92676, are processed for deposit on a weekly basis. Actual computer updating is done at the end of each month. Therefore, it is possible that your check or money order can be received — and even deposited — and your next issue will contain the statement "renewal overdue" on the mailing label. This simply means that your renewal was received after the cut-off date for runnning updated mailing labels.

PRORATED MEMBERSHIPS

Due to postage costs and other considerations, membership applications or renewals for any sum less than the current rate are prorated accordingly. This means that the renewal date will be due in less than a year. Please do not send more money to finish the year; just renew when your prorated date comes up.

Also because of postage costs, RCMA cannot comply with member requests to supply back issues free of additional charge (see the monthly Calendar section regarding ordering of back issues). If a late renewal results in a missed issue, the newsletter can be ordered from RCMA's secretary.

ADDRESS CHANGES

MEMBER notifications of address changes are also updated at the end of each month. If this type of address change notice arrives after the cut-off date, the mailing label will not reflect the new address until the following month.

The newsletter is mailed 3rd class under a bulk mail permit. When a member's address change is supplied by the POST OFFICE (instead of by the member), the charge to the club is 25¢. Although this fee is supposed to include forwarding of an issue to the new address, the result is often simply a return of the issue to P.O. 4563. The message is clear: when you move, notify RCMA yourself. Don't wait for the Post Office to do it.

SPECIAL FREQUENCY REQUESTS

Get in touch with your local RCMA group (see monthly Calendar section for chapter listings) or use the Contact/Information Wanted column for frequencies in your area. RCMA is not yet set up for national distribution of frequencies, although ultimately, the 'big picture' could include copies of the FCC and IRAC data bases, a fast computer, and software to select and sort in any order.

Contributions of frequencies and other material must be sent to the appropriate newsletter editor. (Editors use their own discretion in printing material sent them by non-members.) Data sent to P.O. Box 4563 is always subject to delay and sometimes cannot be forwarded because of postage costs.

DISCLAIMER

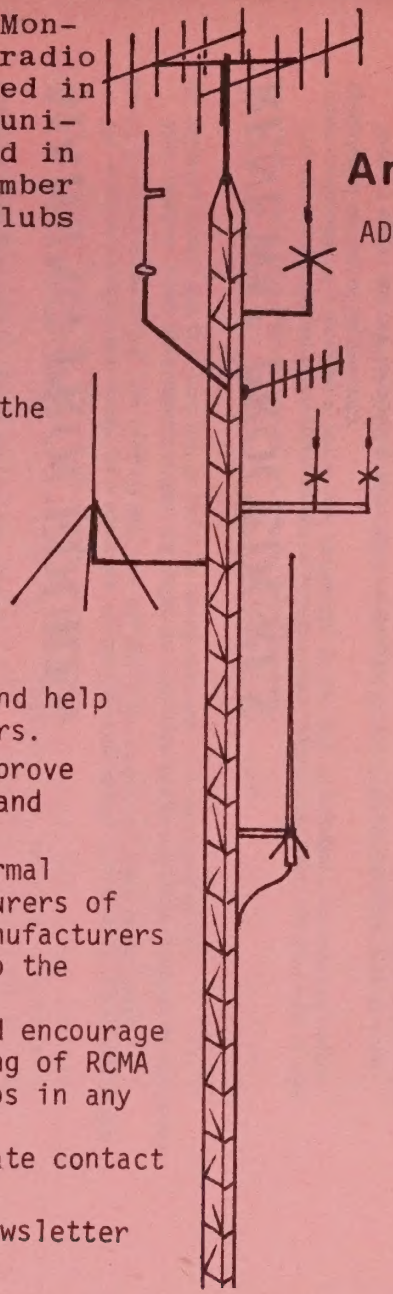
RCMA is a non-profit club for scanner enthusiasts. Neither RCMA or its newsletter are affiliated with, participate in the management of, or are responsible for, any other organization or publication. This disclaimer includes application to POLICE CALL, an annual publication put out by RCMA's good friend Gene Hughes. Queries about this publication cannot be answered by RCMA.

PLEASE REMEMBER — When writing to RCMA for any reason, include your membership number. Use it on your correspondence, checks, or money orders. RCMA tries hard to be responsive to your questions/problems. Using your membership number when you write helps us be of help to you.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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